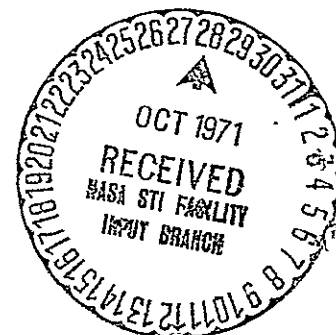


DMS-DR-1109  
AUGUST 1971

—SPACE SHUTTLE—

**AERODYNAMIC CHARACTERISTICS  
OF GD B-15B BOOSTER DURING  
CRUISE AND LANDING  
 $M = 0.2$**

by



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ARSHALL SPACE FLIGHT CENTER

**GENERAL DYNAMICS  
LOW SPEED WIND  
TUNNEL**

SADSAC/SPACE SHUTTLE  
WIND TUNNEL TEST DATA REPORT

CONFIGURATION: GD/Convair 0.0175 Scale B-15B With Modifications

TEST PURPOSE: Evaluate the cruise and landing characteristics at a  
nominal Mach number of 0.2

TEST FACILITY: GD Low Speed Wind Tunnel

TESTING AGENCY: GD/FWO for GD/SDO

TEST NO. & DATE: Test No. 587-0 January 19-29, 1971

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CONTRACT NAS 8-4016AMENDMENT 153DRL 184 - 58

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# ABSTRACT

A 0.0175 scale model of the General Dynamics Corporation B-15B space shuttle booster was tested in the GD Low Speed Wind Tunnel to evaluate the low speed aerodynamic characteristics. Four basic wings plus modifications were tested at the nominal Mach number of 0.201 and Reynolds number of 1.39 million per foot. The Reynolds number was varied from 1.29 to 2.19 million per foot with negligible changes in the data. The model had transition strips on at all times. The angle-of-attack range was  $-4$  to  $+24$  degrees in 2 degree increments, at sideslip angles of 0, 4, and 8 degrees. Variations in canard position, geometry and deflections were tested. Only a few elevon deflections were tested for two selected wings, in addition to one larger tail size tested.



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## SUMMARY

A 0.0175 scale model of the General Dynamic Corporation B-15B Space Shuttle booster was tested in the GD Low Speed Wind Tunnel to evaluate the low speed aerodynamic characteristics. The model was tested at a nominal Mach number of 0.201 and a Reynolds number of 1.39 million per foot with transition strips at all time. For one series of runs Reynolds number was varied from 1.29 to 2.19 million per foot with negligible changes in the data. The model angle of attack range was -4 to +24 degrees in 2 degree increments, at sideslip angle of 0, 4, and 8 degrees. Four basic wings plus sixteen modifications of the wing were tested. Five canards, eight canard positions and selected canard deflections were tested. Only a few elevon deflections were tested for selected wings in addition to one large vertical tail.

## CONFIGURATIONS INVESTIGATED

### Configuration Nomenclature

The model components tested are described below:

<u>Symbol</u>	<u>Description</u>
B <sub>19</sub>	Basic B-15B booster body with R <sub>1</sub> rocket engines and fairings installed at all times. (B <sub>20</sub> when model is inverted).
C <sub>4</sub>	Basic delta canard with geometric full-scale area of 460 ft <sup>2</sup> (10% of W <sub>13</sub> ).
C <sub>5</sub>	Alternate delta canard with geometric full-scale area of 690 ft <sup>2</sup> (15% of W <sub>13</sub> ).
C <sub>6</sub>	Alternate rectangular canard with geometric full-scale area of 300 ft <sup>2</sup> (6.5% of W <sub>13</sub> ).
C <sub>6-1</sub>	Alternate rectangular canard with geometric full-scale area of 230 ft <sup>2</sup> (5.0% of wing W <sub>13</sub> exposed area).
C <sub>7</sub>	Alternate delta canard with geometric full scale area of 190 ft <sup>2</sup> (4.1% of wing W <sub>13</sub> exposed area).
E <sub>31</sub>	Alternate return engines mounted in pods beneath W <sub>10</sub> with through airflow.
E <sub>32</sub>	Basic return engines individually mounted beneath W <sub>10</sub> with through airflow.
P <sub>1</sub>	External protuberances to represent fuel lines and fairings.
R <sub>1</sub>	Outside row of eight rocket engines simulated on the model base. Inner engines are replaced by the model sting.
V <sub>7</sub>	Basic vertical tail with full-scale area of 1274 ft <sup>2</sup> $\Lambda_{LE} = 35^\circ$ .

CONFIGURATIONS INVESTIGATED  
(Continued)

<u>Symbol</u>	<u>Description</u>
V <sub>8</sub>	Alternate vertical tail with full-scale area of 1423 ft <sup>2</sup> . $\Lambda_{LE} = 3$ This tail is derived by extending the L.E. and T.E. lines of V <sub>7</sub> upward.
W <sub>10</sub>	Basic symmetric delta wing with sharp wing tips. Has split elevons. $\Lambda_{LE} = 53^\circ$ .
W <sub>10-1</sub>	Delta wing W <sub>10</sub> with wax leading edge added to outboard section of wing.
W <sub>10-2</sub>	Wing modification W <sub>10-1</sub> with sharp inboard end rounded.
W <sub>10-3</sub>	Delta wing W <sub>10</sub> with wax fuselage-wing intersection fillet.
W <sub>10-4</sub>	Delta wing W <sub>10</sub> with full trailing edge extension.
W <sub>10-5</sub>	Delta wing W <sub>10</sub> with modification of W <sub>10-4</sub> plus wax leading edge fairing.
W <sub>10-6</sub>	Delta wing W <sub>10</sub> with modifications of W <sub>10-5</sub> plus wax fuselage-wing intersection fillet. This fillet is larger than the one installed on W <sub>10-3</sub> .
W <sub>10-7</sub>	Delta wing W <sub>10</sub> with leading edge fairing of W <sub>10-5</sub> and fuselage-wing intersection fillet of W <sub>10-6</sub> plus one-half trailing edge extension.
W <sub>10-8</sub>	Delta wing W <sub>10</sub> with leading edge fairing of W <sub>10-5</sub> and fuselage-wing intersection fillet of W <sub>10-6</sub> . (No trailing extension).
W <sub>10-9</sub>	Delta wing W <sub>10</sub> with fuselage-wing intersection fillet of W <sub>10-6</sub> plus wax leading edge fairing with a serpentine planform.
W <sub>10-10</sub>	Delta wing W <sub>10</sub> with modifications of W <sub>10-9</sub> plus wax build-up of leading edge fairing.



CONFIGURATIONS INVESTIGATED  
(Continued)

<u>Symbol</u>	<u>Description</u>
W <sub>10-11</sub>	Delta wing W <sub>10</sub> with leading edge fairing of W <sub>10-9</sub> plus reduced fuselage-wing intersection fillet.
W <sub>10-12</sub>	Delta wing W <sub>10</sub> with modifications of W <sub>10-11</sub> plus full trailing edge extension with rounded tip.
W <sub>10-13</sub>	Delta wing W <sub>10</sub> with fuselage-wing intersection fillet of W <sub>10-11</sub> and full trailing edge extension of W <sub>10-12</sub> plus wax leading edge fairing.
W <sub>11</sub>	Existing cambered delta wing (W <sub>5</sub> ) reworked to fit the B-15B body. This wing has a one-piece elevon.
W <sub>11-1</sub>	Cambered delta wing W <sub>11</sub> with a waxed leading edge fairing.
W <sub>12</sub>	Alternate swept wing with $AR_{THEO} = 4$ , $\Lambda_{LE} = 40^{\circ}$ and split elevons.
W <sub>12-1</sub>	Swept wing W <sub>12</sub> with a waxed leading edge fairing.
W <sub>13</sub>	Basic symmetric delta wing (W <sub>10</sub> ) with wing tips clipped. Wing has split elevons.
W <sub>13-1</sub>	Clipped delta wing W <sub>13</sub> with leading edge fairing of W <sub>10-13</sub> and fuselage-wing intersection fillet of W <sub>10-11</sub> .
F <sub>1</sub>	Fence mounted along B.L. 374 on the upper surface of wing W <sub>10-13</sub> .
F <sub>2</sub>	Fences mounted along B.L. 374 and B.L. 557 on the upper surface of wing W <sub>10-13</sub> .
F <sub>3</sub>	Fence mounted along B.L. 557 on the upper surface of wing W <sub>10-13</sub> .

Refer to pages 55 through 69 for dimensional data on the above components.

CONFIGURATIONS INVESTIGATED  
(Continued)

Combinations Tested

The basic B-15B configuration consisted of the following components:

$B_{19}R_1V_7C_4W_{10}E_{32}P_1$

with the canard  $C_4$  in position 1. The following combinations were tested:

Combination

Wing Modifications

$B_{19}$

$B_{19}C_4$

$B_{19}C_5$

$B_{19}C_6$

$B_{19}W_{10}$

$B_{19}W_{10}V_7$

$W_{10-3}, W_{10-4}, W_{10-13}$

$B_{19}W_{10-9}C_7$

$B_{19}W_{10}V_7C_4$

$W_{10-1}, W_{10-2}, W_{10-3}, W_{10-4}, W_{10-5},$

$W_{10-6}, W_{10-7}, W_{10-8}, W_{10-12}, W_{10-13}$

$B_{19}W_{10}V_7C_6$

$B_{19}W_{10-9}V_7C_7$

$W_{10-10}, W_{10-11}, W_{10-12}, W_{10-13}$

$B_{19}W_{10-9}V_8C_7$

$B_{19}W_{10-13}V_7C_6-1$

CONFIGURATIONS INVESTIGATED  
(Continued)

<u>Combination</u>	<u>Wing Modifications</u>
B <sub>19</sub> W <sub>10</sub> V <sub>7</sub> P <sub>1</sub> C <sub>4</sub>	
B <sub>19</sub> W <sub>10</sub> V <sub>7</sub> P <sub>1</sub> E <sub>32</sub> C <sub>4</sub>	W <sub>10-13</sub>
B <sub>19</sub> W <sub>10</sub> V <sub>7</sub> P <sub>1</sub> E <sub>31</sub> C <sub>4</sub>	
B <sub>19</sub> W <sub>10-13</sub> V <sub>7</sub> C <sub>4</sub> F <sub>1</sub>	
B <sub>19</sub> W <sub>10-13</sub> V <sub>7</sub> C <sub>4</sub> F <sub>2</sub>	
B <sub>19</sub> W <sub>10-13</sub> V <sub>7</sub> C <sub>4</sub> F <sub>3</sub>	
B <sub>20</sub> W <sub>10</sub> C <sub>4</sub> (model inverted)	W <sub>10-3</sub>
B <sub>19</sub> W <sub>11-1</sub>	
B <sub>19</sub> W <sub>11-1</sub> V <sub>7</sub>	
B <sub>19</sub> W <sub>11</sub> V <sub>7</sub> C <sub>4</sub>	W <sub>11-1</sub>
B <sub>19</sub> W <sub>11</sub> V <sub>7</sub> C <sub>4</sub> P <sub>1</sub>	
B <sub>19</sub> W <sub>12-1</sub>	
B <sub>19</sub> W <sub>12</sub> V <sub>7</sub>	W <sub>12-1</sub>
B <sub>19</sub> W <sub>12</sub> V <sub>7</sub> C <sub>4</sub>	W <sub>12-1</sub>
B <sub>19</sub> W <sub>12</sub> V <sub>7</sub> C <sub>5</sub>	W <sub>12-1</sub>
B <sub>19</sub> W <sub>12</sub> V <sub>7</sub> C <sub>7</sub>	
B <sub>19</sub> W <sub>12</sub> V <sub>7</sub> C <sub>4</sub> P <sub>1</sub>	
B <sub>19</sub> W <sub>13</sub> V <sub>7</sub> C <sub>4</sub>	W <sub>13-1</sub>

Refer to the data collation sheets, pages 11 through 19 for a complete listing of the combinations tested and the corresponding test variables.

TEST GDLST 587-0 DATA SET COLLATION SHEET

☐ PRETEST  
☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. of RUNS	CANARD											
		$\alpha$	$\beta$	$\delta E_L$	$\delta E_R$	$\delta C_L$	$\delta C_R$		1	2	3	4	5	6	7	8	9	10	11	12
RCMA01	B19W10V7P1C4	A	0	0/0	0/0	0/0	0/0	1	1											
RCMA02			4					1	2											
RCMA03			8					1	3											
RCMA04			0			20/0	20/0	1	4											
RCMA05			4					1	5											
RCMA06			8					1	6											
RCMA07	B19W10V7 C4		0					5	7	22	31	81				.68				
RCMA08			4					5	8	23	32	82				69				
RCMA09			8					5	9	24	33	83				70				
RCMA10			0			0/0	0/0	5	10	19	28	78				65				
RCMA11			4					5	11	20	29	79				66				
RCMA12			8					5	12	21	30	80				67				
RCMA13	B19W10V7P1E32C4		0					1	34											
RCMA14			4					1	35											
RCMA15			8					1	36											
RCMA16	B19W10V7P1E31C4		0					1	37											
RCMA17			4					1	38											
RCMA18			8					1	39											
RCMA19	B19W10-1 V7C4		0					1								63				
RCMA20	B19W10-2 V7C4		0					1								64				

1 7 13 19 25 31 37 43 49 55 61 67 75 76  
C L C Y C D C S L C L M C L N C A C C A B C A C N C A N A R D A L P H A I O

COEFFICIENTS:  $A\alpha = -4$  to  $+24^\circ$  @  $\Delta\alpha \approx 2^\circ$  IDPVAR(1) IDPVAR(2) NDV  
a or  $\beta$   
SCHEDULES

## □ POSTTEST

212

**NASA-MSFC-MAF**

☐ PRETEST

☐ POSTTEST

**COEFFICIENTS:**

 $\alpha$  or  $\beta$ 

## SCHEDULES

$$Aa = -4 t_0 + 24^\circ @ \Delta a \approx 2^\circ$$

TEST GDLST 587-0 DATA SET COLLATION SHEET

☐ PRETEST

☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	CONTROL DEFLECTION				NO. of RUNS	BETA									
			$\alpha$	$\delta E_L$	$\delta E_R$	$\delta C_L$		$\delta C_R$									
RCMA 50	B19 W10	A		%	%	-	-	3	45	46	47						
RCMA 51	B19			-	-	-	-	3	48	49	50						
RCMA 52	B19 C4 (Pos-1)			-	-	%	%	3	51	52	53						
RCMA 53	B19 C5 (Pos-1)			-	-	%	%	3	54	55	56						
RCMA 54	B19 C6 (Pos-1)			-	-	%	%	3	57	58	59						
RCMA 55	B19 C4 (Pos-8)			-	-	%	%	3	60	61	62						
RCMA 56	B19 W10 V7 P1 C4 (Pos-1)			%	%	%	%	1	41								
RCMA 57								1	42								
RCMA 58								1	43								
RCMA 59								1	44								
RCMA 60	B19 W10 V7							3	25	26	27						
RCMA 61	B20 W10 C4 (Pos-8)							3	86	87	88						
RCMA 62						%	%	3	92	93	94						
RCMA 63	B20 W10					-	-	3	89	90	91						
RCMA 64	B20 W10-3 C4 (Pos-8)					%	%	3	95	96	97						
RCMA 65	B19 W10-3 V7 C4 (Pos-8)							3	98	99	100						
RCMA 66	B19 W10-3 V7					-	-	3	101	102	103						
RCMA 67	B19 W10-4 V7					-	-	3	106								
RCMA 68	B19 W10-4 V7 C4 (Pos-8)					%	%	3	107	108	109						
RCMA 69						20%	20%	3	110	111	112						

14

1 7 13 19 25 31 37 43 49 55 61 67 75 76  
 CL CY CD CSL CLM CLN CAC CAB CA CN BETA ALPHA 10

COEFFICIENTS:

→ IDPVAR(1) IDPVAR(2) NDV

$\alpha$  or  $\beta$

SCHEDULES

$$A^a = -4 t_0 + 24^\circ @ \Delta a \approx 2^\circ$$

NASA-HSFC-MAP

# TEST GDLST 587-0 DATA SET COLLATION SHEET

☐ PRETEST

☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	CONTROL DEFLECTION				NO. of RUNS	BETA											
			$\alpha$	$\delta \epsilon_L$	$\delta \epsilon_R$	$\delta C_L$		$\delta C_R$	0°	4°	8°								
RCMA 70	B19W10-4V7C4(Pos-1)	A		%	%	20%	20%	1	113										
RCMA 71						%	%	3	114	115	116								
RCMA 72						0/20	0/20	3	117	118	119								
RCMA 73	B19W10-5V7C4(Pos-1)					%	%	3	121	122	123								
RCMA 74	B19W10-6V7C4(Pos-1)							3	121	127	128								
RCMA 75	B19W10-7V7C4(Pos-1)							3	129	130	131								
RCMA 76	B19W10-8V7C4(Pos-1)							3	132	133	134								
RCMA 77				10%	10%			1	135										
RCMA 78				20%	20%			1	136										
RCMA 79	B19W10-9V7C4(Pos-1)							1	137										
RCMA 80				%	%			1	138										
RCMA 81	B19W10-9V7C7(Pos-1)	-						3	140	141	142								
RCMA 82				10%	10%			1	143										
RCMA 83				20%	20%			1	144										
RCMA 84				-10%	-10%			1	145										
RCMA 85	B19W10-10V7C7(Pos-1)			%	%			3	146	147	148								
RCMA 86	B19W10-9V8C7(Pos-1)							3	149	150	151								
RCMA 87	B19W10-9C7(Pos-1)							3	152	153	154								
RCMA 88	B19W10-9V7C7(Pos-1)							3	155	156	157								
RCMA 89	B19W10-11V7C7(Pos-1)							3	158	159	160								

1	7	13	19	25	31	37	43	49	55	61	67	75	76
CL	CY	CD	CSL	CLM	CLN	CAC	CAB	CA	CN	BETA	ALPHA	10	

COEFFICIENTS:

→ IDPVAR(1) IDPVAR(2) NDV

$\alpha$  or  $\beta$

SCHEDULES

$$A\alpha = -4 \text{ to } +24^\circ @ \Delta\alpha = 2^\circ$$



☐ PRETEST

☐ POSTTEST

16
$$A_a = -4 \text{ to } 24^\circ @ \Delta a \approx 2^\circ$$

**NASA-MSFC-MAF**

☐ PRETEST

☐ POSTTEST

COEFFICIENTS: \_\_\_\_\_ IDPVAR(1) IDPVAR(2) NDV

$\alpha$  or  $\beta$  \_\_\_\_\_

SCHEDULES \_\_\_\_\_  $A_\alpha = -4 t_0 + 24^\circ @ \Delta \alpha \approx 2^\circ$

# TEST GDLST 587-0 DATA SET COLLATION SHEET

☐ PRETEST  
☐ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	CONTROL DEFLECTION				NO. of RUNS	BETA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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18

1 7 13 19 25 31 37 43 49 55 61 67 75 76  
CL CY CD CSL CLM CLN CAC CAB CA CN BETA ALPHA 10

COEFFICIENTS:

⇒ IDPVAR(1) IDPVAR(2) NDV

$\alpha$  or  $\beta$

SCHEDULES

$$A\alpha = -4 \text{ to } +24^\circ @ \Delta\alpha = 2^\circ$$

TEST GDLST 587-0 DATA SET COLLATION SHEET

## □ POSTTEST

[illegible]

1	7	13	19	25	31	37	43	49	55	61	67	7576
CL	CY	CD	CSL	CLM	CLN	CAC	CAB	CA	CN	BETA	ALPHA	10

**COEFFICIENTS:**

$\alpha$  or  $\beta$

## SCHEDULES

$$A_a = -4 t_0 + 24^\circ @ \Delta a \approx 2^\circ$$

IDPVAR(1)	IDPVAR(2)	NDV
-----------	-----------	-----

NOTE: CANARD POSITION 1 IS ASSUMED UNLESS STATED

## TEST FACILITY

The General Dynamics/Convair low speed wind tunnel is a close-return atmospheric tunnel, constructed of reinforced concrete. Airflow is created by a 6-bladed propeller, 20 feet in diameter, powered by a 2250-horsepower synchronous motor.

The tunnel has a primary test section 8 feet high, 12 feet wide and 25 feet long. A model or component can be tested in this section at airspeeds up to 300 mph. The sides and ceiling of the test section are largely glass windows. These windows and fluorescent lights, housed in corner fillets in the test section, provide excellent model observation and model photography. Personnel access doors open directly into the test section from the control room and the model service area.

A variety of support systems are available for mounting a model or component. These support systems include single, bicycle, and three-strut supports, sting supports and supports for two dimensional installations.

Digital computer and plotting facilities are available so that the results of a test run can be processed, tabulated, and plotted within 10 minutes of the test run.

## TEST CONDITIONS

[illegible]

BALANCE UTILIZED: GD/Convair Balance C-5-1.50

**CAPACITY:**

NF	500 lbs
SF	500 lbs
AF	140 lbs
PM	3200 in-lbs
YM	1200 in-lbs
RM	1000 in-lbs

**ACCURACY:**

Figure 1: A schematic diagram of a 1D lattice chain. It shows a horizontal line with several vertical bars representing lattice sites. The sites are labeled with letters: 'a' at the left end, 'b' and 'c' in the middle, and 'd' at the right end. Arrows indicate interactions between adjacent sites. A double-headed arrow connects site 'a' to site 'b'. A single-headed arrow points from site 'b' to site 'c'. A double-headed arrow connects site 'c' to site 'd'. A single-headed arrow points from site 'd' to the right, indicating an open boundary. The diagram is labeled 'Figure 1' at the bottom.

COEFFICIENT  
TOLERANCE:

**Figure 6**

Figure 6 shows five horizontal bar charts representing different categories: "All", "Low", "Medium", "High", and "Very High". Each chart displays two bars: one labeled "A" and another labeled "B". The y-axis for all charts ranges from 0 to 100. The x-axis labels are "A" and "B". The approximate values for each category are as follows:

Category	A (%)	B (%)
All	~75	~85
Low	~65	~75
Medium	~55	~65
High	~45	~55
Very High	~35	~45

**COMMENTS :**

## DATA REDUCTION

Aerodynamic forces and moments were measured with the Convair C-5-1.50 six-component balance. Seven base and two cavity pressures were measured. The data presented have been corrected for tunnel wall effects before reducing to coefficient form about the Moment Reference Center (MRC). For all data presented, the MRC was at Fuselage Station (FS) 50.936 and Water Line (WL) 21.000, which corresponds to 33.436 inches from the model nose, along the model centerline, and 3.938 inches above the trailing edge of the bottom of the model for the basic delta wing. Model wing dimensional data used to reduce the test data depended upon the wing tested and is listed below

<u>Wing</u>	<u><math>S_{REF}(in^2)</math></u>	<u><math>l_{REF}(in)</math></u>	<u><math>b_{REF}(in)</math></u>
W <sub>10</sub>	343.87	15.062	30.440
W <sub>11</sub>	379.87	15.539	28.980
W <sub>12</sub>	257.90	9.056	32.130
W <sub>13</sub>	339.12	15.246	26.884
None	343.87	15.062	30.440

and wing modifications, such as W<sub>10-1</sub>, were reduced using the values corresponding to the unmodified wing. The fuselage base area used was 44.011 in<sup>2</sup> and the fuselage cavity area was 4.909 in<sup>2</sup>.

The data was reduced to coefficient form using the normal expressions, except for a cavity pressure to base pressure correction to the axial force coefficient. The two pressure tubes in the balance cavity were manifolded together to provide one measurement denoted as P<sub>c</sub>. This pressure along with the aver-

# DATA REDUCTION (Continued)

aged base pressure ( $p_b$ ) was used to correct the axial force as follows:

$$C_{A_{TC}} = \frac{(p_c - p_b)}{q} \frac{A_c}{S_{REF}}$$

and  $C_A = C_{A_{BALANCE}} + C_{A_{TC}}$

where  $A_c$  = cavity area.

Dimensional data and MRP for the component data, when referenced to the local component, are listed below.

Component	$S_{REF}(in^2)$	$l_{REF}(in)$	$b_{REF}(in)$	$XMRP$	$YMRP$	$ZMRP$
$W_{10}$	208.0	11.705	22.98	28.649	0.0	0.347
$W_{11}$	241.0	12.97	21.52	28.35	0.0	0.34
$W_{12}$	169.5	7.575	24.67	23.816	0.0	0.181
$W_{13}$	203.5	11.94	20.112	28.709	0.0	0.352
$C_4$	20.304	4.016	6.158	16.122	0.0	4.813
$C_5$	30.472	4.920	8.436	16.116	0.0	4.813
$C_6$	13.234	2.256	5.866	15.589	0.0	4.813
$C_{6-1}$	10.150	2.256	4.5	16.024	0.0	4.813
$C_7$	8.580	2.2679	3.6	15.589	0.0	4.813
$B_{19}$	298.7	48.248	6.772	33.436	0.0	3.938
Elevon for $W_{10}$ (outboard)	12.117	1.840	30.44	45.270	0.0	2.874
Elevon for $W_{11}$ (full span)	67.185	3.192	28.98	45.267	0.0	2.857



TABLE II. SUMMARY OF SADSAC NOMENCLATURE - AERODYNAMIC FORCE AND MOMENT COEFFICIENTS

COEFFICIENT	COEFFICIENT NAME	SADSAC NOMENCLATURE		
		BODY AXIS	STABILITY AXIS	WIND AXIS
$C_A$	Total Axial Force	$C_A$	-	-
$C_{AB}$	Base Axial Force	$C_{AB}$	---	-
$C_{AF}$	Forebody Axial Force	$C_{AF}$	-	-
$C_D$	Total Drag Force	-	$C_D$	$C_{DTOTL}$
$C_{DB}$	Base Drag Force	-	$C_{DB}$	$C_{DBASE}$
$C_{DF}$	Forebody Drag Force	-	$C_{DF}$	$C_{DFORE}$
$C_L$	Lift Force	-	$C_L$	$C_L$
$C_N$	Normal Force	$C_N$	-	-
$C_Y$	Side Force	$C_Y$	$C_Y$	$C_C$
$C_l$	Rolling Moment	$C_{BL}$	$C_{SL}$	$C_{WL}$
$C_m$	Pitching Moment	$C_{LM}$	$C_{LM}$	$C_{PM}$
$C_n$	Yawing Moment	$C_{YN}$	$C_{LN}$	$C_{LN}$
$L/D$	Lift-To-Drag Force Ratio	-	$L/D$	$C_L/C_D$
$L/D$	Lift-To-Forebody Drag Force Ratio	-	$L/DF$	$C_L/C_{DF}$
N/A	Normal-To-Axial Force Ratio	N/A	-	-
N/A	Normal-To-Forebody Axial Force Ratio	$C_N/C_{AF}$	-	-

# SUMMARY DATA PLOT INDEX

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
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Basic B-15B Configuration Plus Wing W10-13	(B)	Beta & Wing Configuration	8-10
Alternate B-15B and Wing W10-13 With Canard Deflection	(A)	Canard Deflection	11-17
Effect of Canard Position (CANVTR = 0 Deg.) B19W10V7C4	(C)	Canard Position	18-21
Effect of Canard Position (CANVTR = 20 Deg.) B19W10V7C4	(C)	Canard Position	22-25
Effect of Canard Position (No Canard Fairings) B19W10-13V7C4	(C)	Canard Position	26-29
Effect of Canard Planform and Size With Deflection	(C)	Canard Size, Plan- form & Deflection	30-33
Effect of Canard Planform and Size (CANVTR = 0 Deg.)	(B)	Beta, Canard Plan- form & Size	34-36
Effect of Canard Planform and Size (CANVTR = 20 Deg.)	(B)	Beta, Canard Size and Planform	37-39
Body Build-up B19W10V7C4PLE32	(C)	Configuration	40-43
Comparison of Five Wing W10 Modifications Canard Position 8	(C)	Wing Configuration	44-47
Effect of Trailing Edge Extension Canard Position 1	(C)	Wing Configuration	48-51

SUMMARY DATA PLOT INDEX  
(Continued)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
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Effect of Leading Edge Camber With Wing-Body Fillet Canard Position 1	(C)	Wing Configuration	56-59
Effect of Wing-Body Fillet Canard Position 8	(C)	Wing Configuration	60-63
Effect of Wing-Body Fillet Canard Position 1	(C)	Wing Configuration	64-67
Wing Comparison With Trailing Edge Extension Canard Position 1	(C)	Wing Configuration	68-71
Effect of Wing Fences on Wing W10-13	(C)	Wing Fences	72-75
Canard Deflections for Wing W10-13	(C)	Canard Deflection	76-79
Canard/Canard Flap Deflection for Canard C6	(C)	Canard & Canard Flap Deflection	80-83
High Wing Configuration - Longitudinal Data	(C)	Wing Configuration & Canard Deflection	84-87
High Wing Configuration - Lateral Data	(B)	Canard Configuration and Beta	88-90
Effects of Canards Upon Body	(C)	Canard Configuration	91-94
Effects of Reynolds Number Upon B19W10V7P1C4	(C)	Reynolds Number	95-98
Delta Configuration Without a Canard	(C)	Configuration	99-102

SUMMARY DATA PLOT INDEX  
(Continued)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Effect of Vertical Tail Size on Lateral Data	(B)	Vertical Tail Configuration	103-105
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Wing W13 Lateral Data	(B)	Beta & Canard Position	110-112
Wing W11 Longitudinal Data	(C)	Wing Configuration	113-116
Wing W11 - Lateral Data	(B)	Beta and Configuration	117-119
Effect of Canard Position for Wing W11-1	(C)	Canard Position	120-123
Elevon and Canard Deflection B19W11-1V7C4	(C)	Elevator & Canard Deflection	124-127
Elevon Deflection B19W11-1V7	(C)	Elevon Deflection	128-131
Body Build-up to B19W11-1V7C4	(C)	Configuration	132-135
Wing W11 Lateral Data (CANVTR = 0 Deg.)	(B)	Beta	136-138
Wing W11 Lateral Data (CANVTR = 0 Deg.)	(B)	Beta	139-141
Wing W11 Lateral Data (CANVTR = 20 Deg.)	(B)	Beta	142-144
Canard and Plumbing Variation for Wing W12	(C)	Configuration	145-148
Effect of Canard Position - B19W12-1V7C4	(C)	Canard Position	149-152

SUMMARY DATA PLOT INDEX  
(Continued)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Effect of Leading Edge Camber For Wing W12	(C)	Wing Configuration	153-156
Body Build-up to B19W12V7C4P1	(C)	Configuration	157-160
Canard Deflection for B19W12-1V7C4	(C)	Canard Deflection	161-164
Canard Deflection for B19W12-1V7C4 Lateral Data	(B)	Beta & Canard Deflection	165-173
Comparison of Wings - Each Referenced to Own Theoretical Wing	(C)	Wing Configuration	174-177
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Wing Component Data - Each Referenced to Own Exposed Wing	(D)	Wing	182-184
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Modified Wing W10 Component Data	(D)	Wing	191-193
Modified Wing W10 Component Data	(D)	Wing	194-196
Canard Component Data - Based on Exposed Canard	(D)	Canard	197-199

SUMMARY DATA PLOT INDEX  
(Continued)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	PAGES
Body B19 Component Data - Based on Body Reference	(D)	Beta	200-202
Fuselage F1 Component Data - Based on Wing W10 Reference	(D)	Beta	203-205
Engine E32 Component Data - Based on Wing W10 Reference	(D)	Beta	206-208
Engine E31 Component Data - Based on Wing W10 Reference	(D)	Beta	209-211
Wing W10 Outboard Elevon Component Data - Referenced to Elevon	(E)	Alpha	212-220
Wing W11 Full Span Elevon Component Data - Referenced to Elevon	(E)	Alpha	221-229
Canard C4 Component Data - Reference to Canard	(F)	Alpha	230-238
Canard C7 Component Data - Reference to Canard	(F)	Alpha	239-247
Canard C6 Component Data - Reference to Canard	(F)	Alpha	248-256

SUMMARY DATA PLOT INDEX  
(Continued)

PLOTTED COEFFICIENT SCHEDULE:

- (A) CL, CD, CAB & L/D vs. ALPHA  
CL vs. CD, CL vs. L/D & CL vs. CIM
- (B) CY, CIN & CSL vs. ALPHA
- (C) CL vs. , CL vs. CD  
CL vs. L/D, CL vs. CIM
- (D) CN, CA & CIM vs. ALPHA
- (E) CN, CA & CIM vs. Elevator
- (F) CN, CA & CIM vs. CANVTR

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows.
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity.

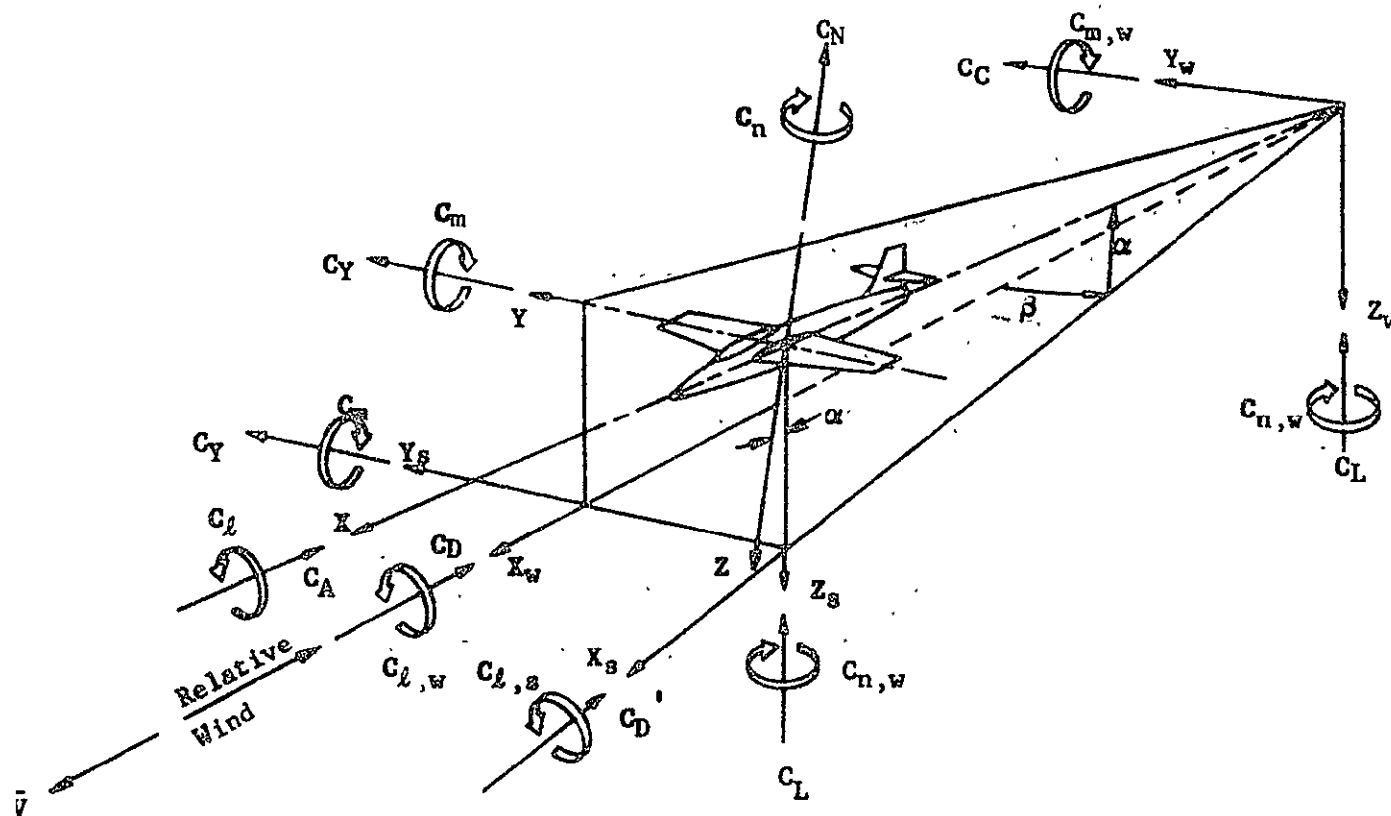


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle



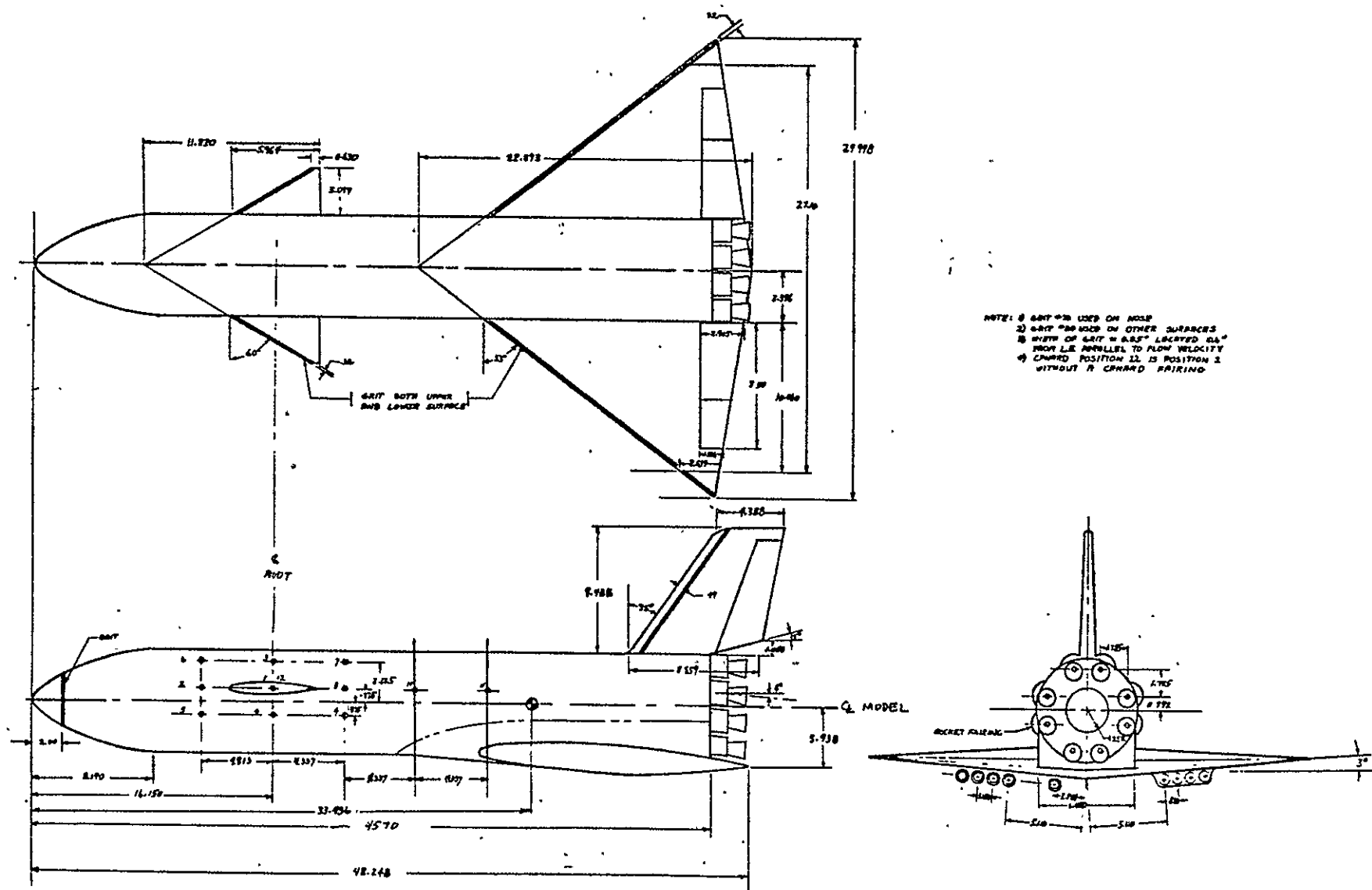


Figure 2. Three-View of the 0.0175 Scale B-15 B Booster Model.

NOT REPRODUCIBLE

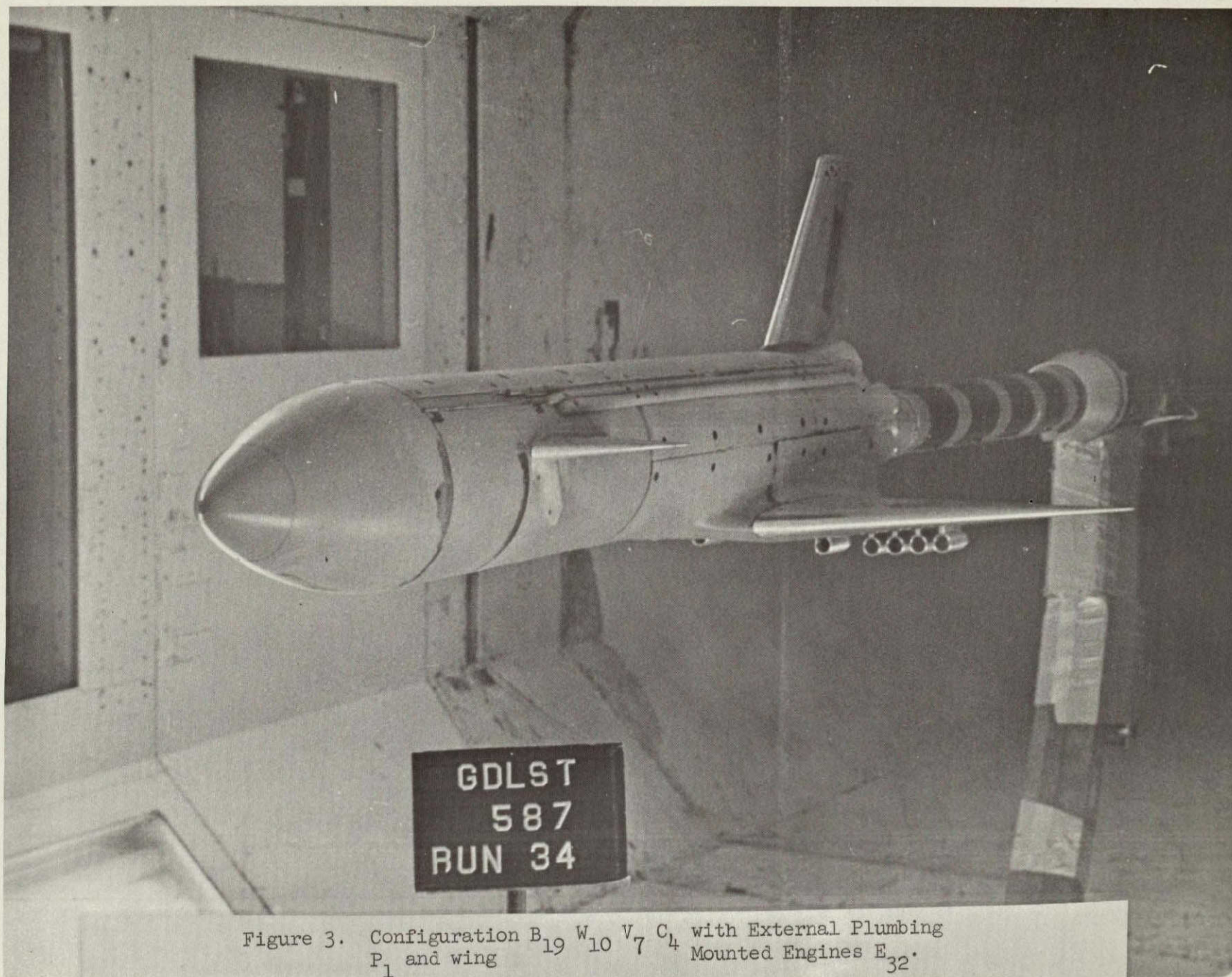


Figure 3. Configuration  $B_{19} W_{10} V_7 C_4$  with External Plumbing  $P_1$  and wing Mounted Engines  $E_{32}$ .



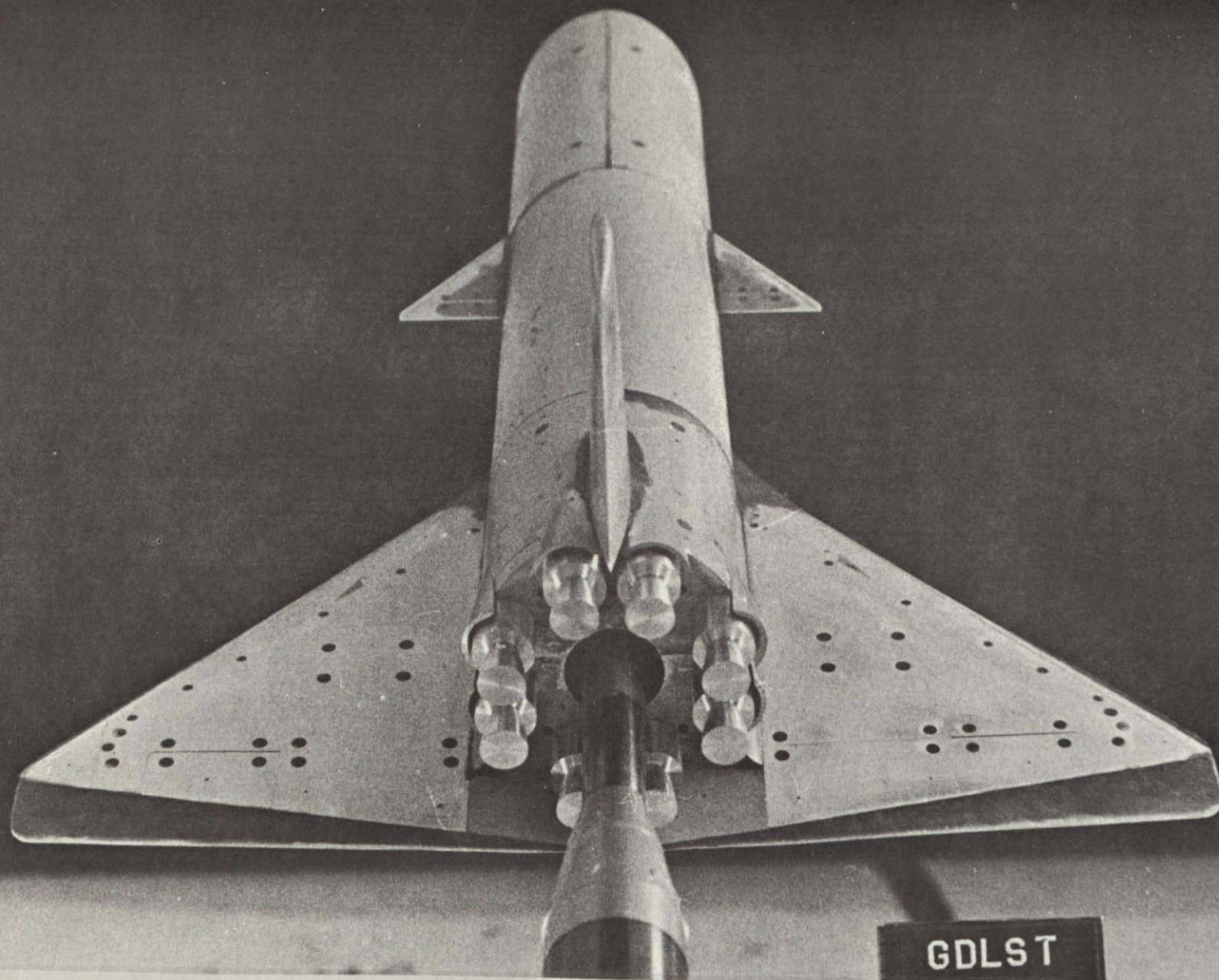


Figure 4. Configuration  $B_{19}^{W_{10-13} V_7 C_4}$ , wing  $W_{10}$  with Trailing  
Edge Extension, Tip Camber, and a Wing-Body Fairing.

GDLST  
587  
RUN 174



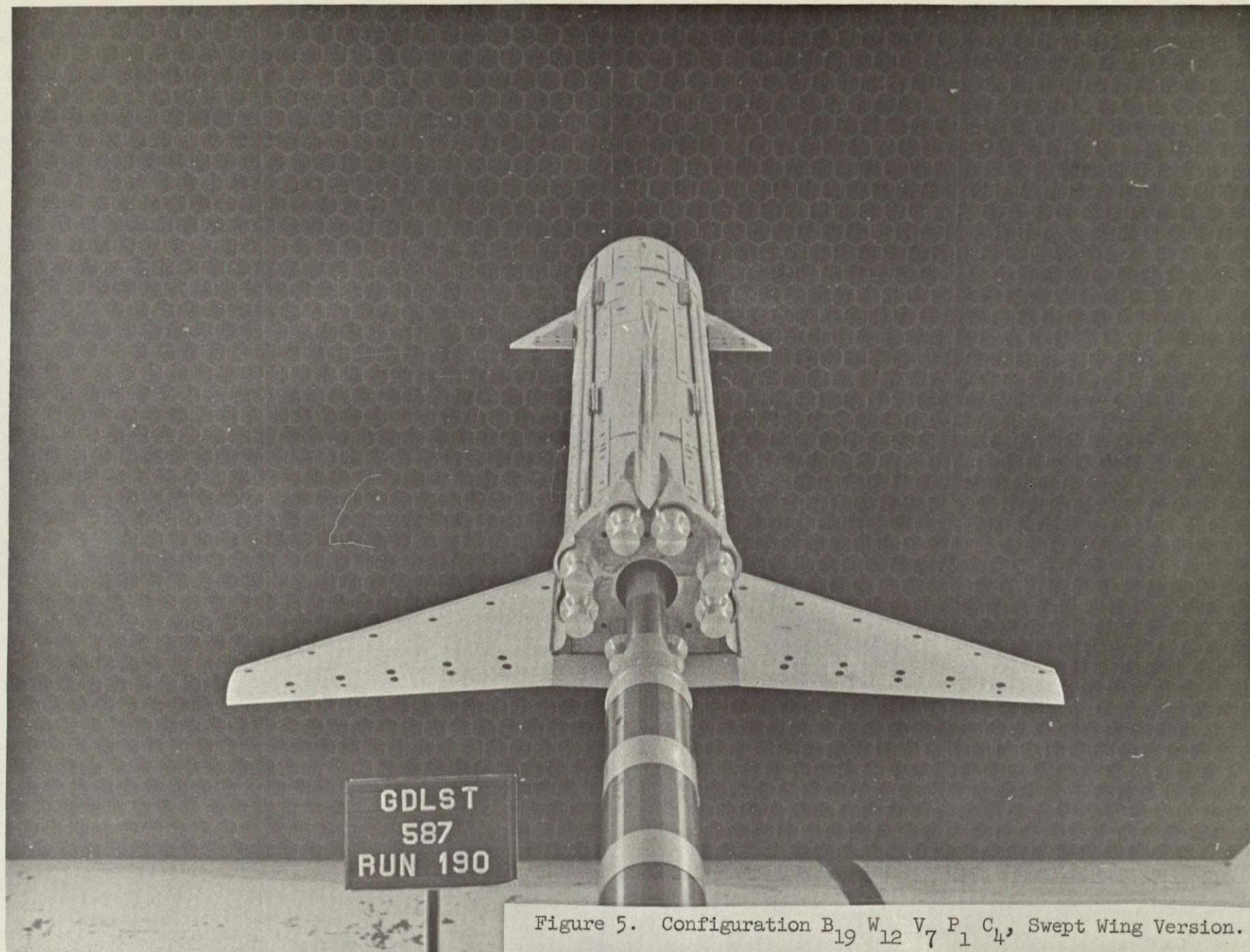


Figure 5. Configuration B<sub>19</sub> W<sub>12</sub> V<sub>7</sub> P<sub>1</sub> C<sub>4</sub>, Swept Wing Version.



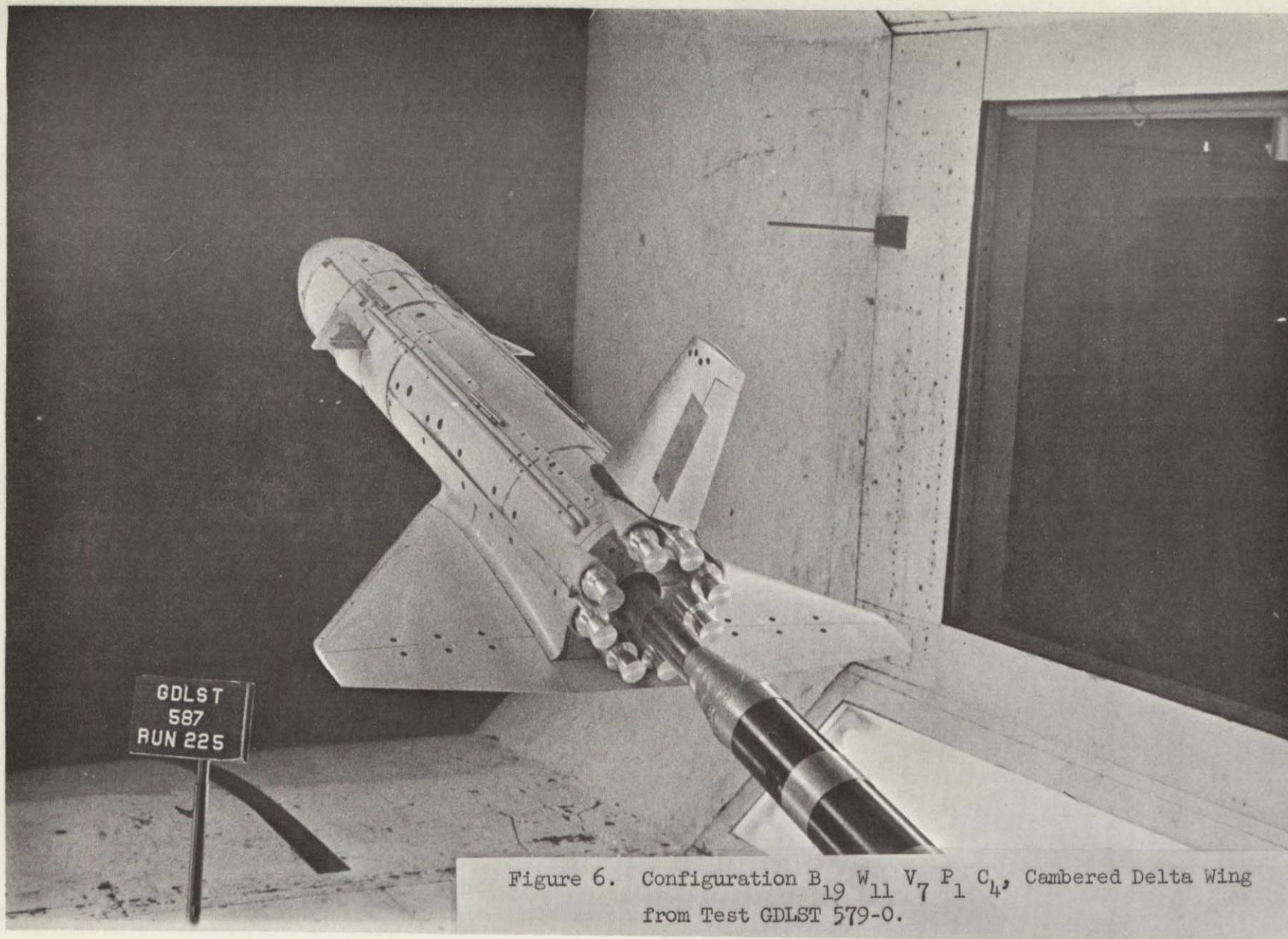


Figure 6. Configuration  $B_{19} W_{11} V_7 P_1 C_4$ , Cambered Delta Wing  
from Test GDLST 579-0.



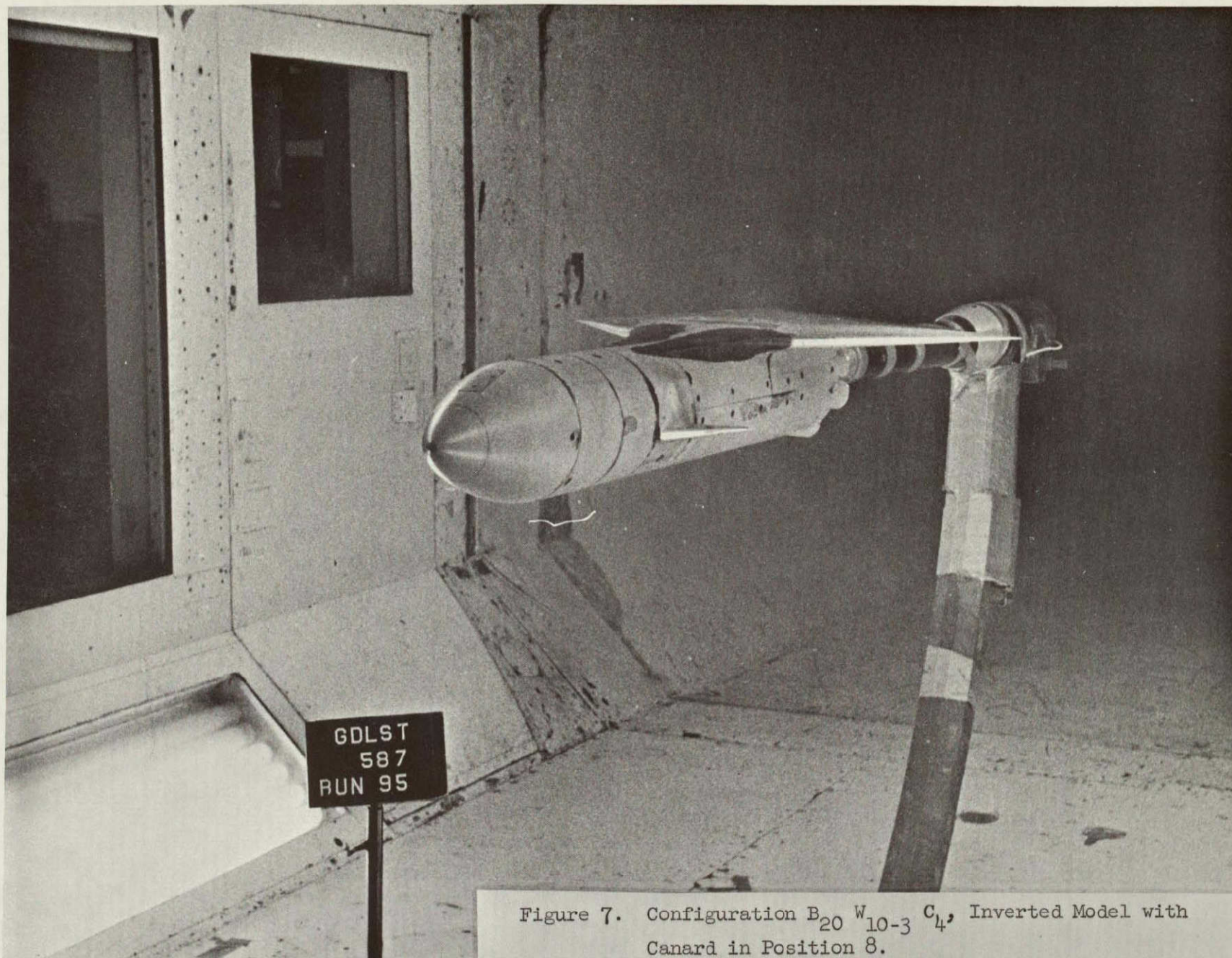


Figure 7. Configuration B<sub>20</sub> W<sub>10-3</sub> C<sub>4</sub>, Inverted Model with Canard in Position 8.



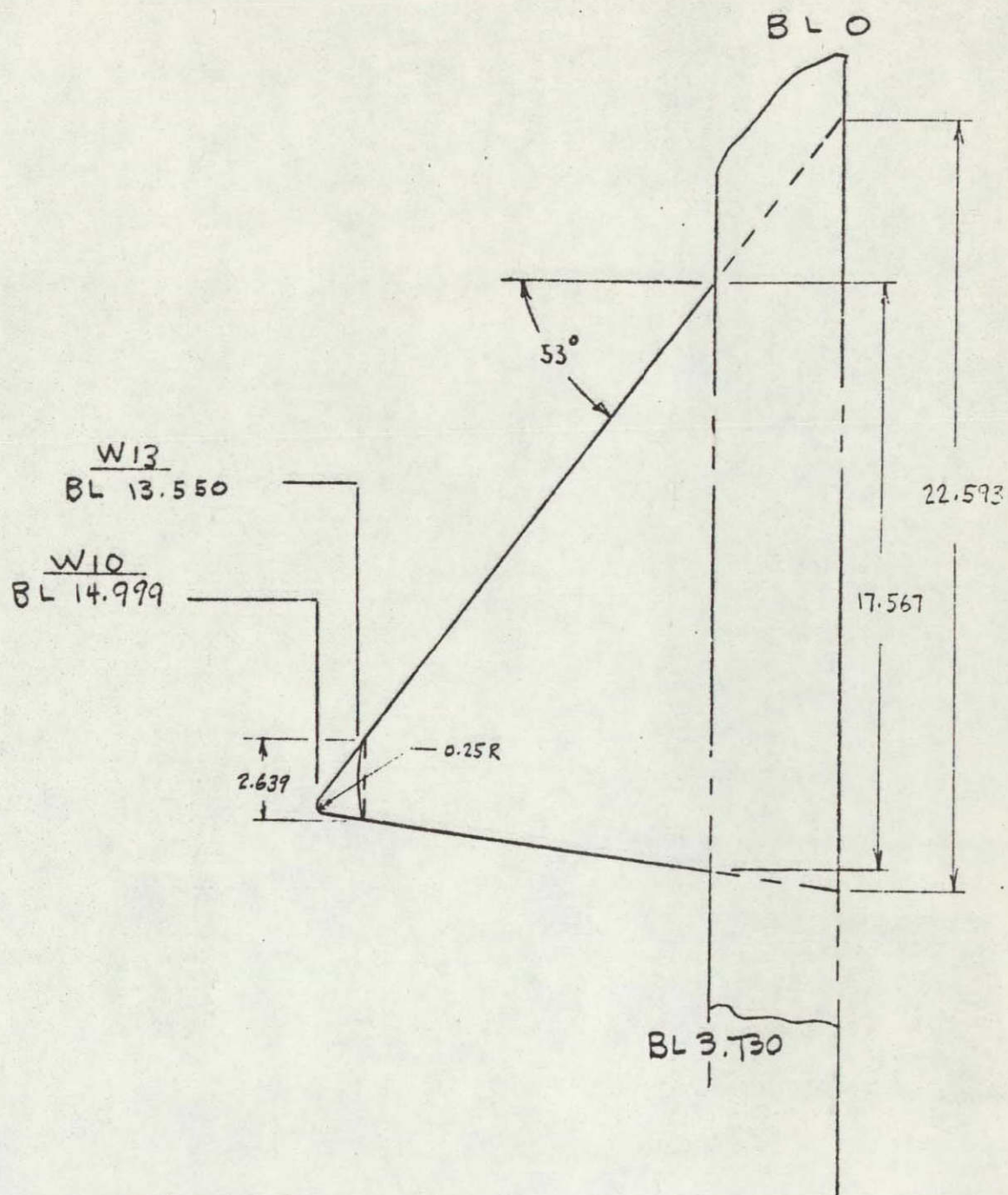


FIGURE 8. WINGS W10 AND W13

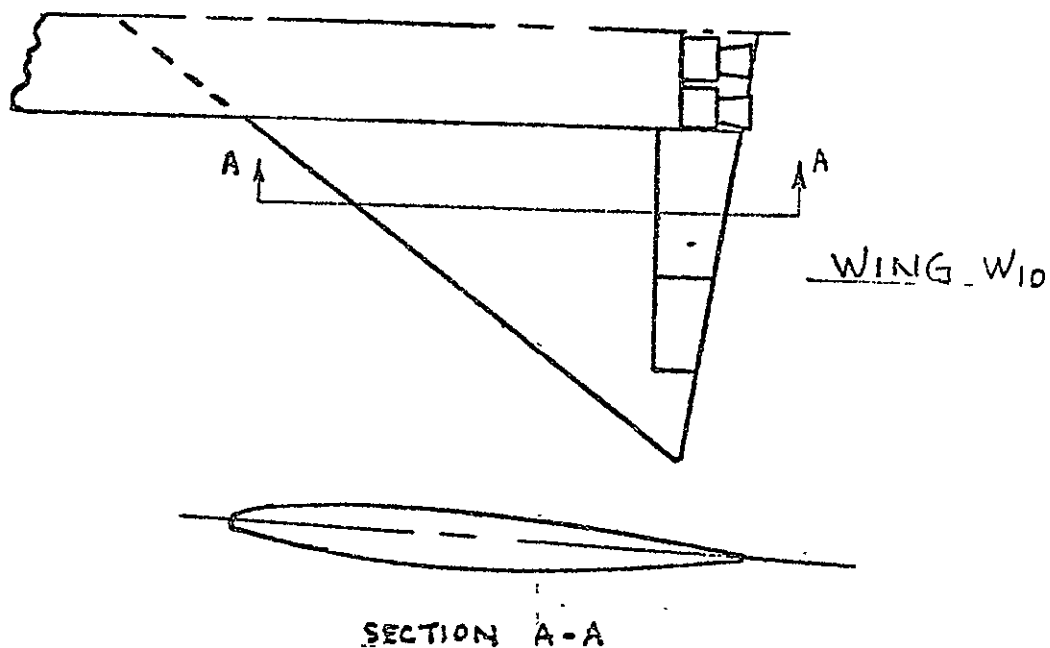


FIGURE 9. BASIC WING FOR THE B-15B CONFIGURATION.  
 $(L/D)_{MAX} = 5.29$

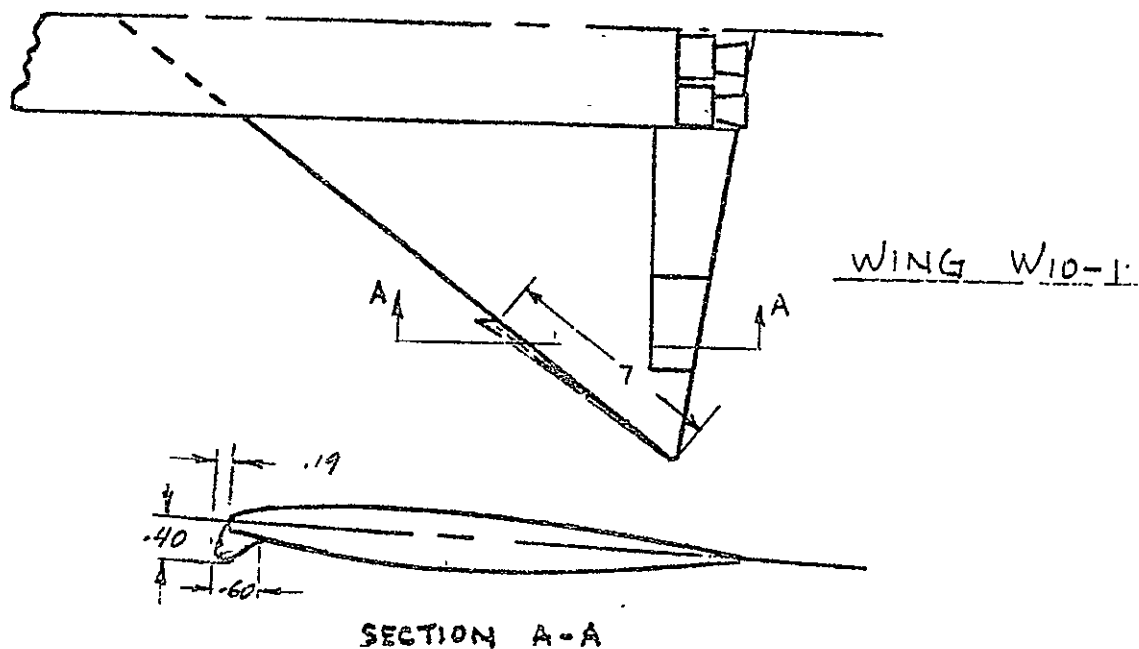
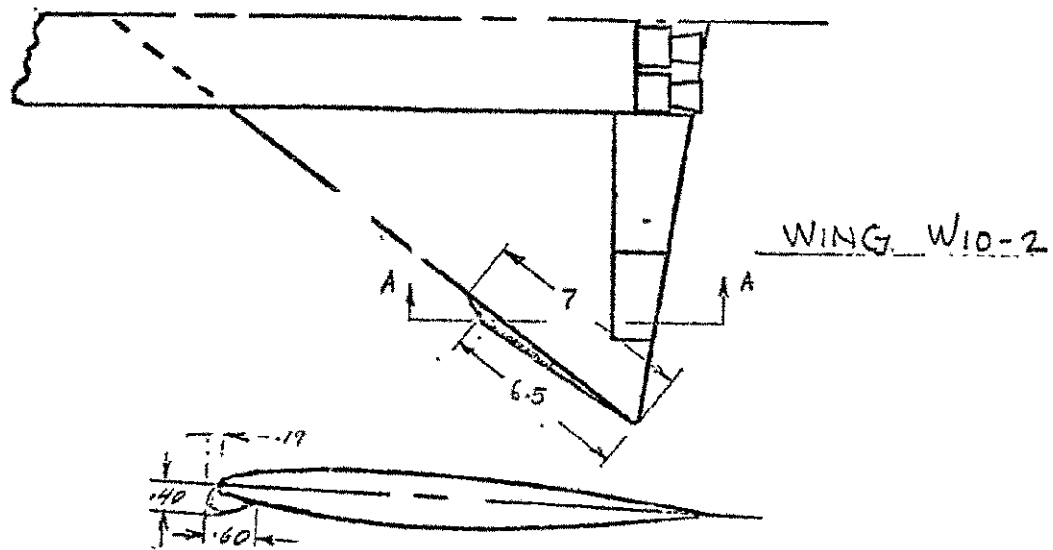


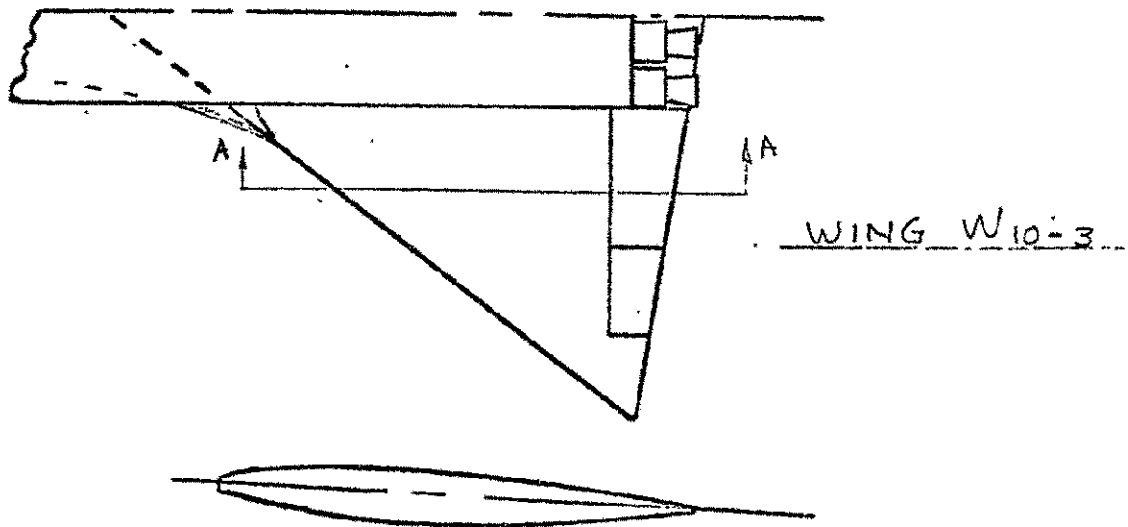
FIGURE 10. WING W10 MODIFIED WITH LEADING EDGE  
 CAMBER ON OUTBOARD SECTION. SAME REF. CONDITIONS  
 AS W10.  $(L/D)_{MAX} = 5.83$





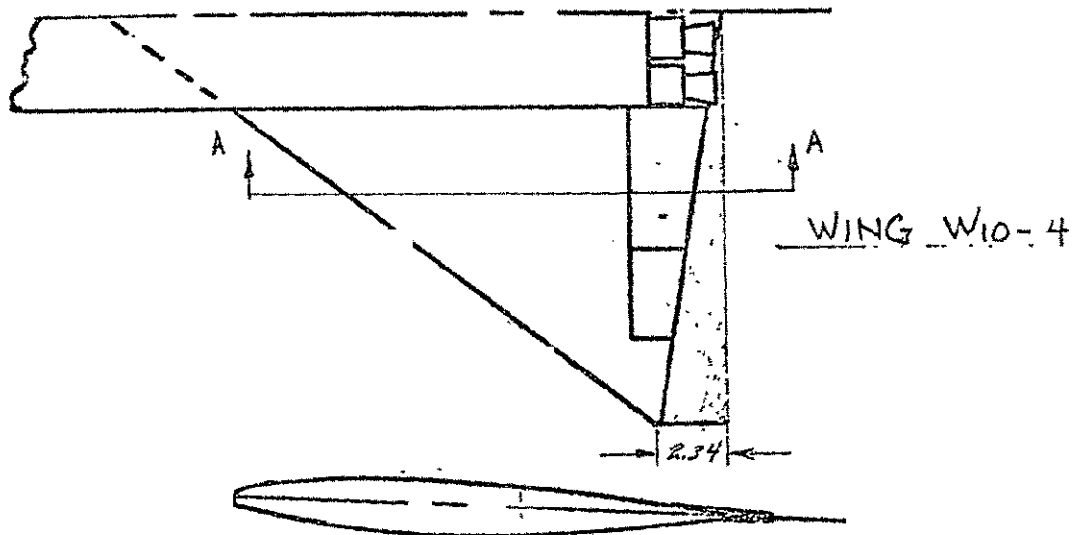
SECTION A-A

FIGURE 11. WING W10-1 MODIFIED BY FAIRING INBOARD  
L. E. CAMBER INTO WING.  $(L/D)_{MAX} = 5.81$



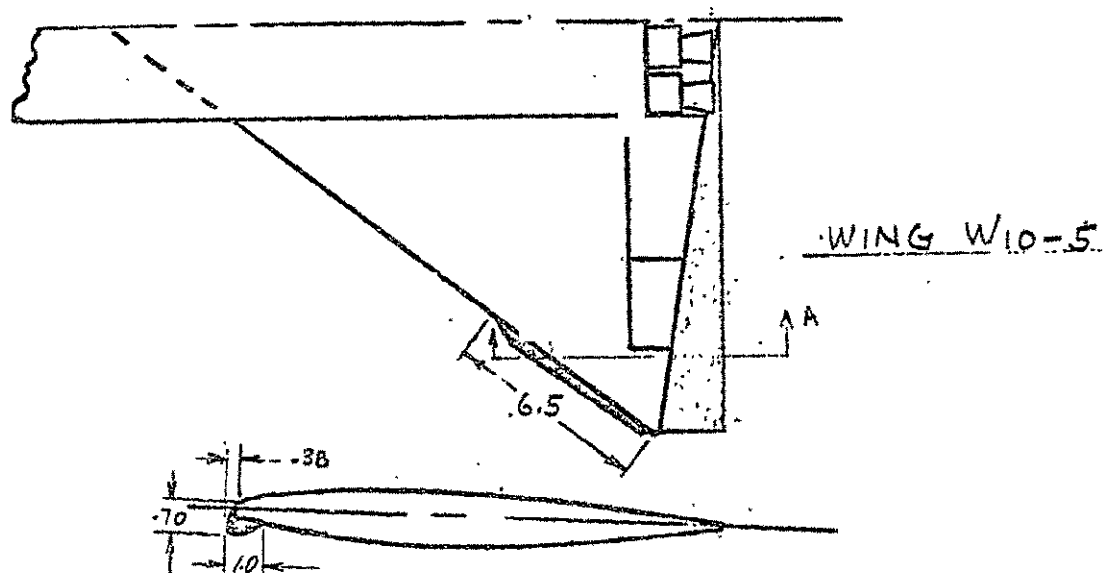
SECTION A-A

FIGURE 12. WING W10 WITH A SMALL WING-FUSELAGE  
FILLET.  $(L/D)_{MAX} = 5.12$



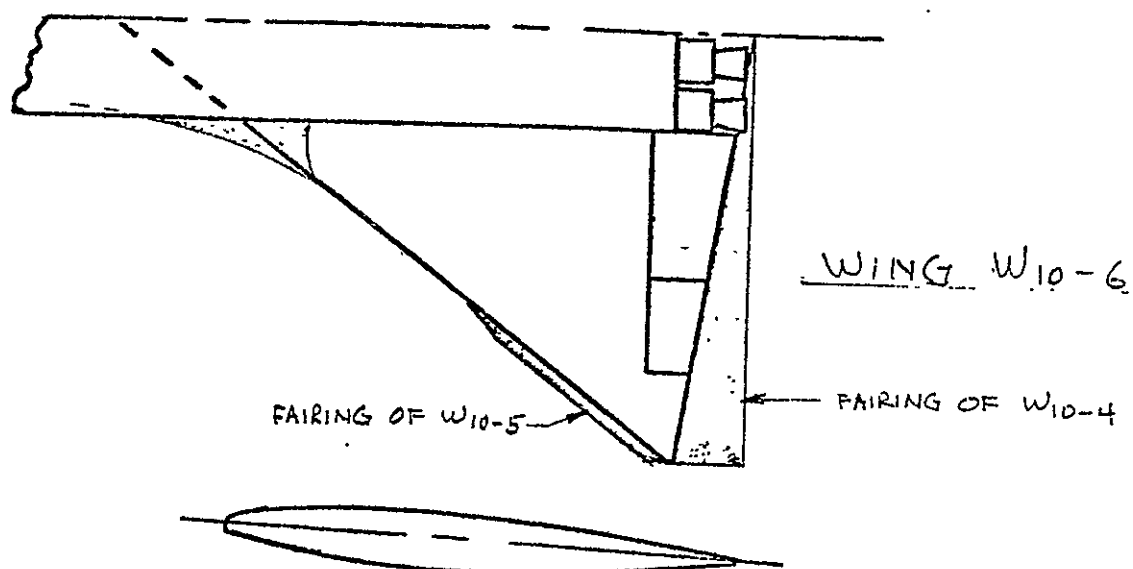
SECTION A-A

FIGURE 13. WING W10 WITH A T.E. EXTENSION MADE WITH SHEET OF 0.06 ALUM. AND WAX CONTOUR.  
 $(L/D)_{MAX} = 5.58$



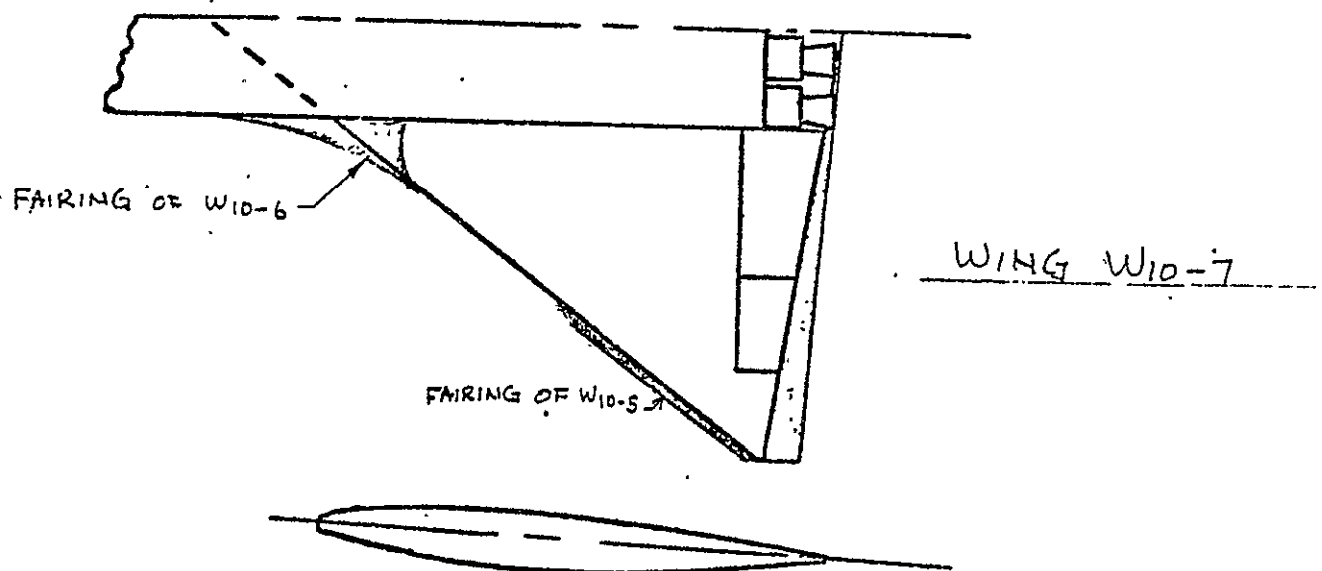
SECTION A-A

FIGURE 14. WING W10-4 WITH L.E. CAMBER ON OUTBORED SECTION.  $(L/D)_{MAX} = 5.98$



SECTION A-A

FIGURE 15. WING W10-5 WITH A WING-FUSELAGE FILLET.  
 $(L/D)_{MAX} = 5.95$



SECTION A-A

FIGURE 16. WING W10-6 WITH  $\frac{1}{2}$  OF THE T.E. EXTENSION.  
 $(L/D)_{MAX} = 5.87$

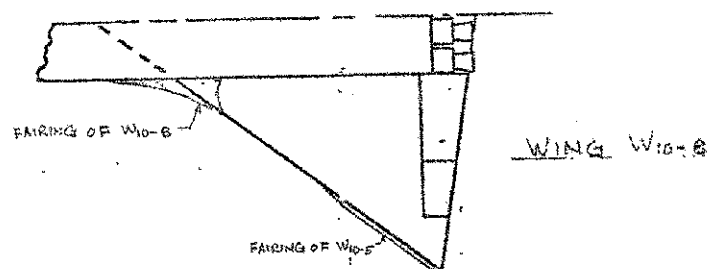


FIGURE 17. WING W10-8 WITHOUT T/E. EXTENSION.  
 $(L/D)_{MAX} = 5.67$

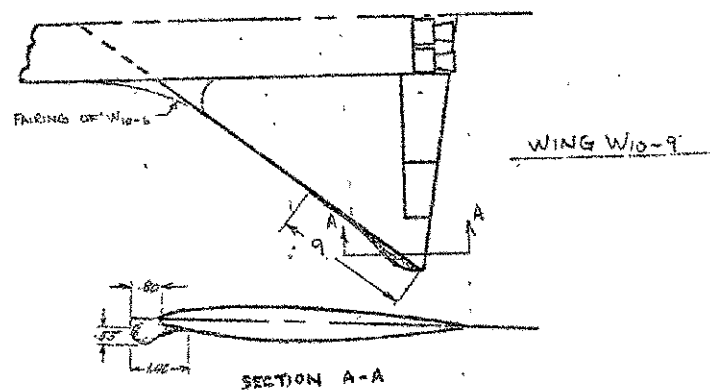


FIGURE 18. WING W10-8 WITH L.E. CAMBER REPLACED BY  
 A CONCORD TYPE WING TIP.  $(L/D)_{MAX} = 5.72$

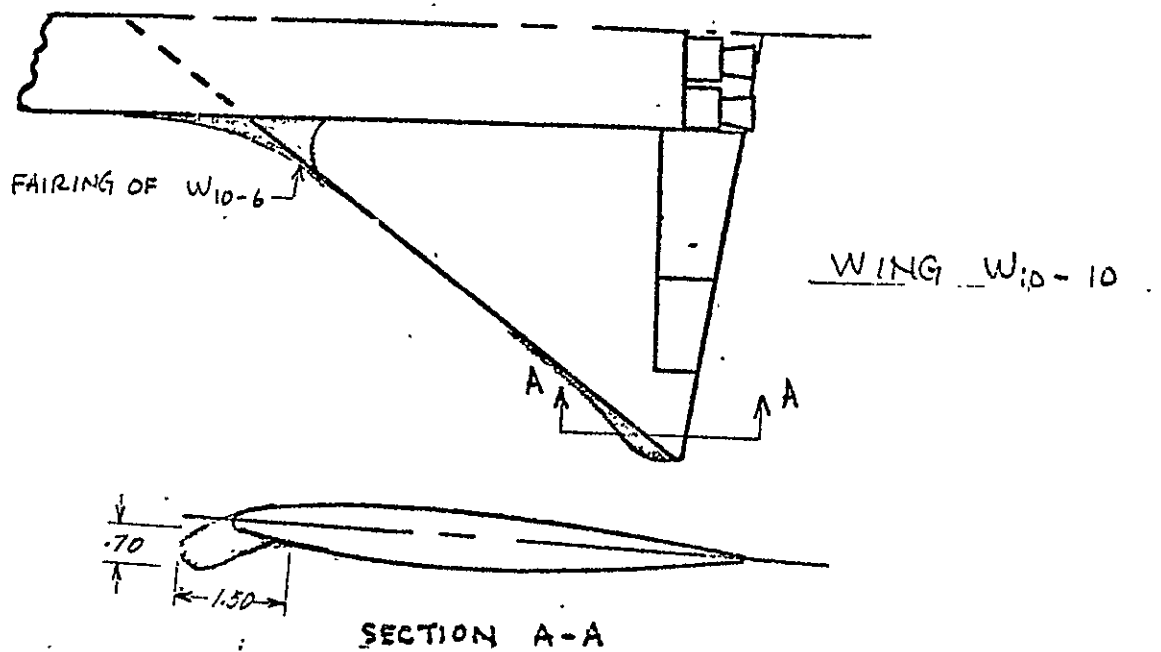


FIGURE 19. WING W10-9 WITH INCREASED CAMBER AT TIP  
 $(L/D)_{MAX} = 5.72$

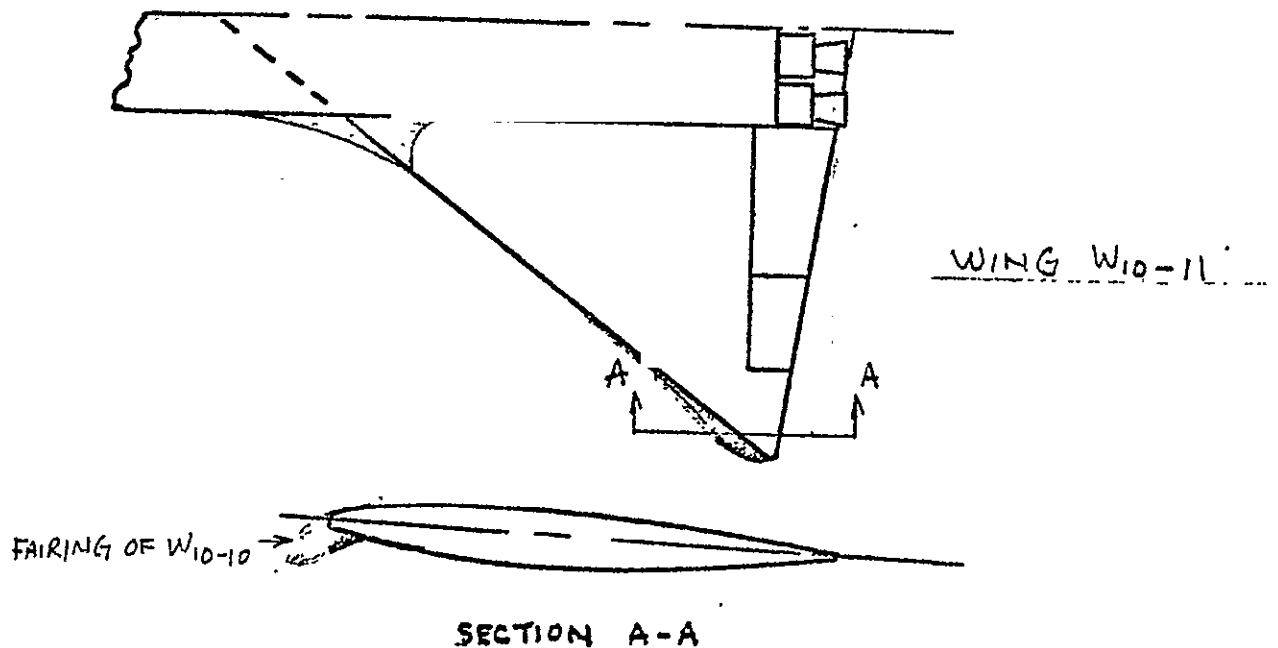


FIGURE 20. WING W10-9 WITH WING-FUSELAGE FILLET  
 REDUCED IN SIZE.  $(L/D)_{MAX} = 5.72$

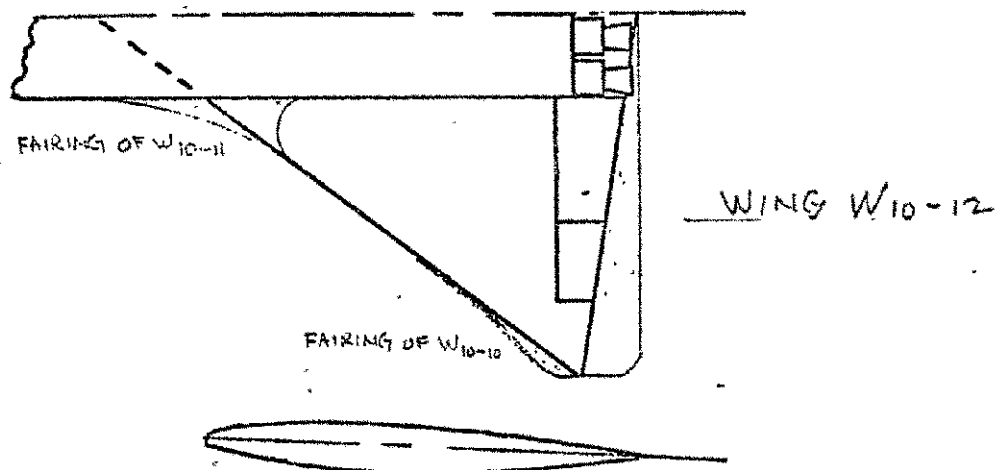


FIGURE 21. WING W10-11 WITH FULL T.E. EXTENSION AND CURVED EDGES.  $(L/D)_{MAX} = 5.79$

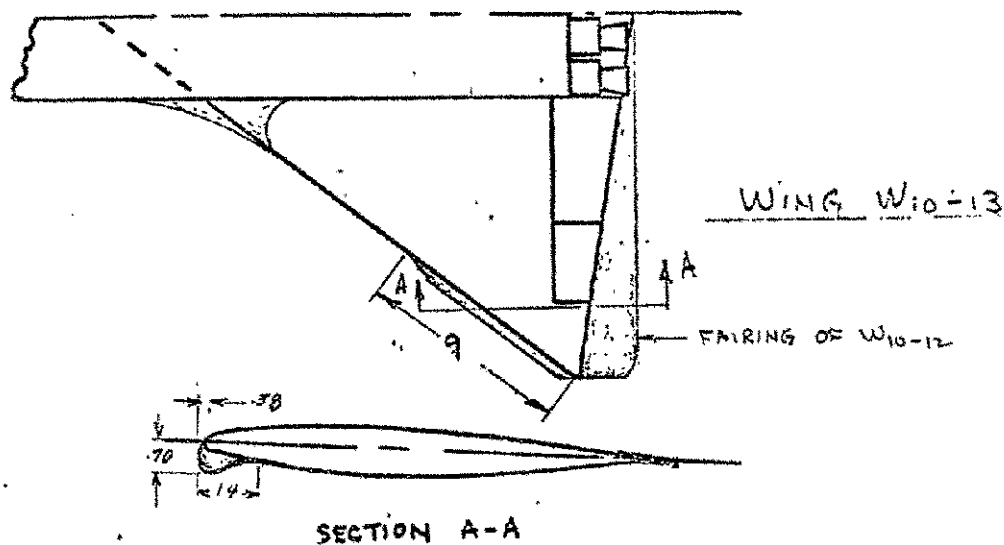


FIGURE 22. WING W10-12 WITH CONCORD TIP REPLACED BY L.E. CAMBER.  $(L/D)_{MAX} = 6.02$

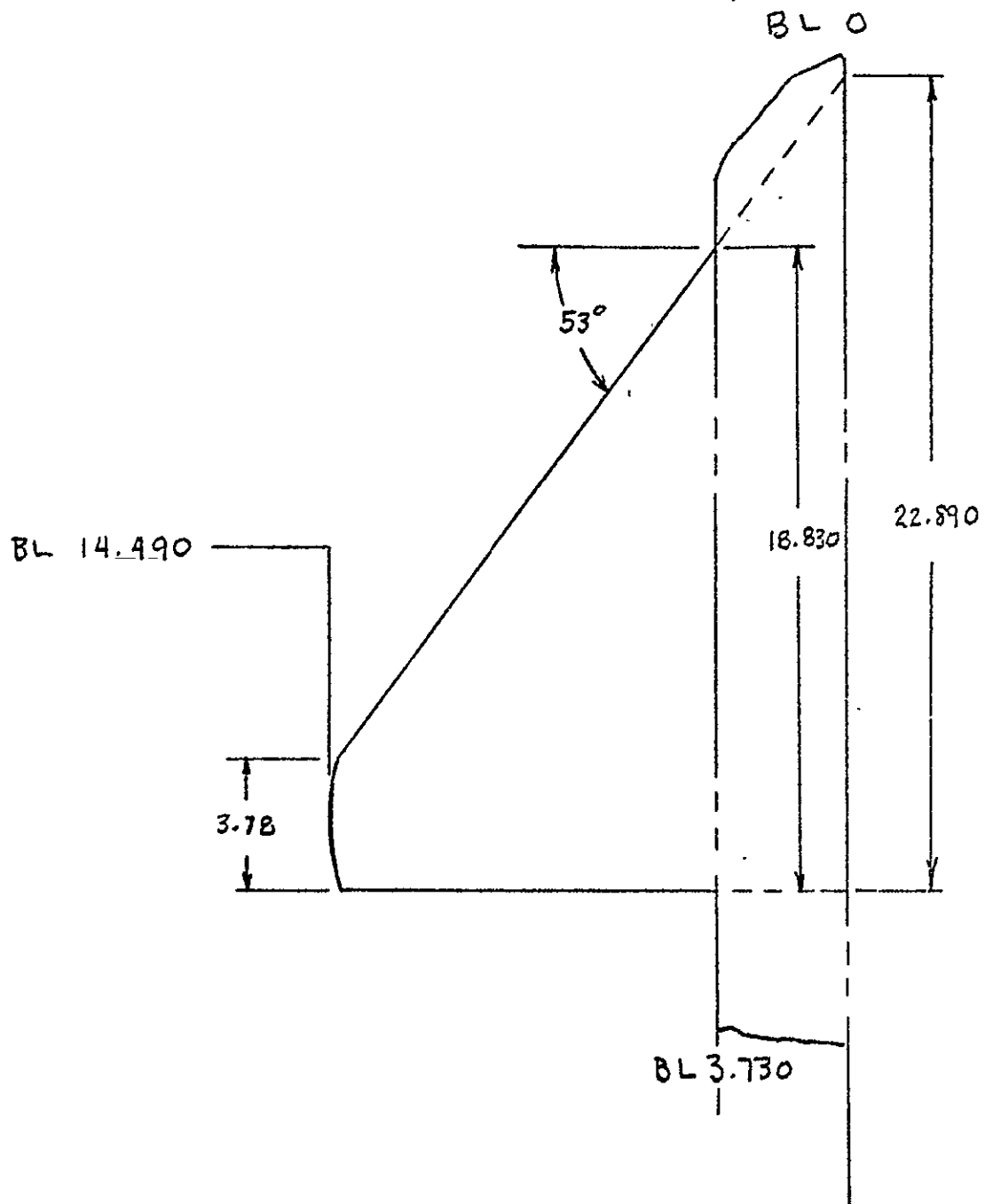


FIGURE 23. WING W11

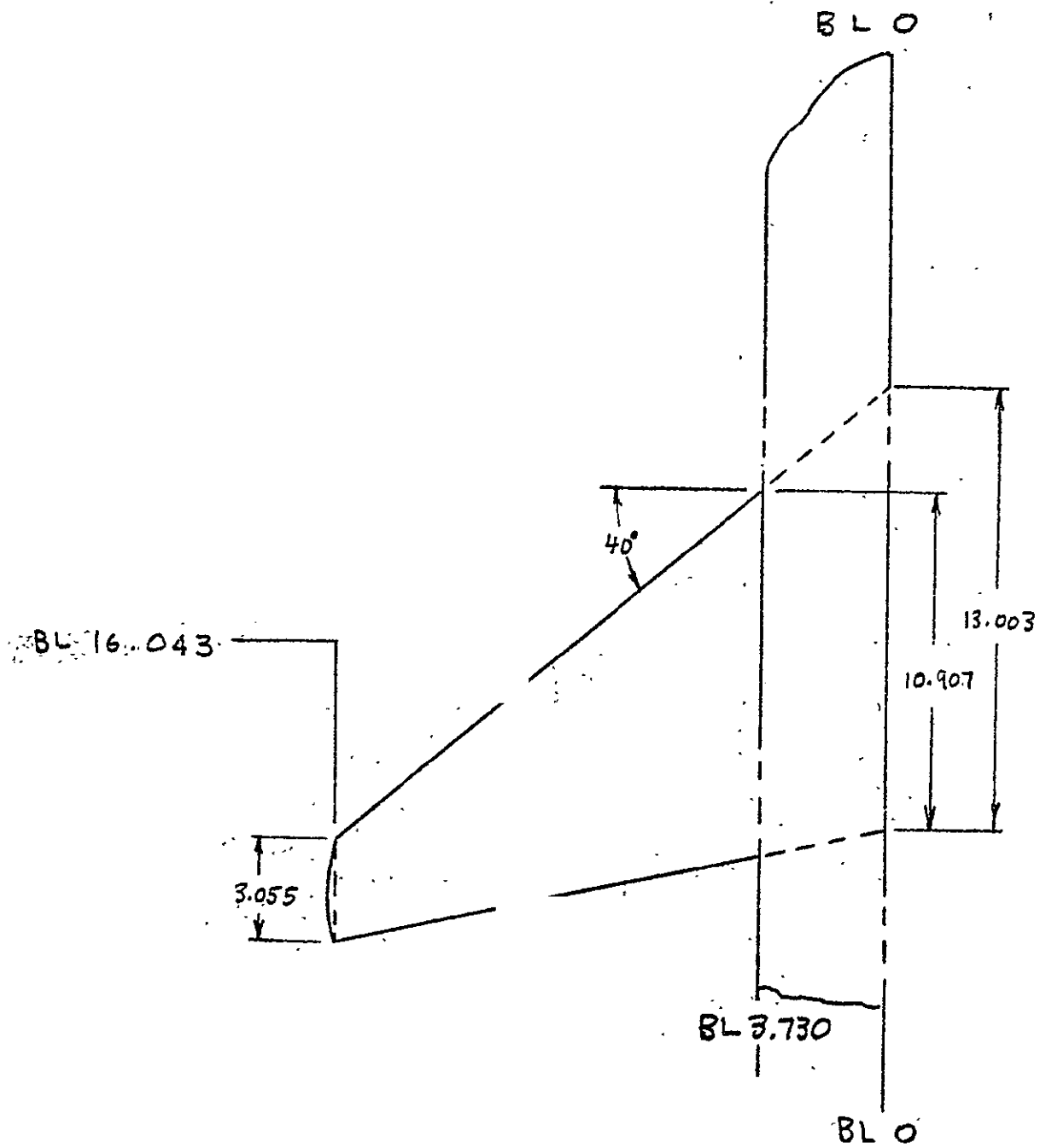


FIGURE 24. WING W12



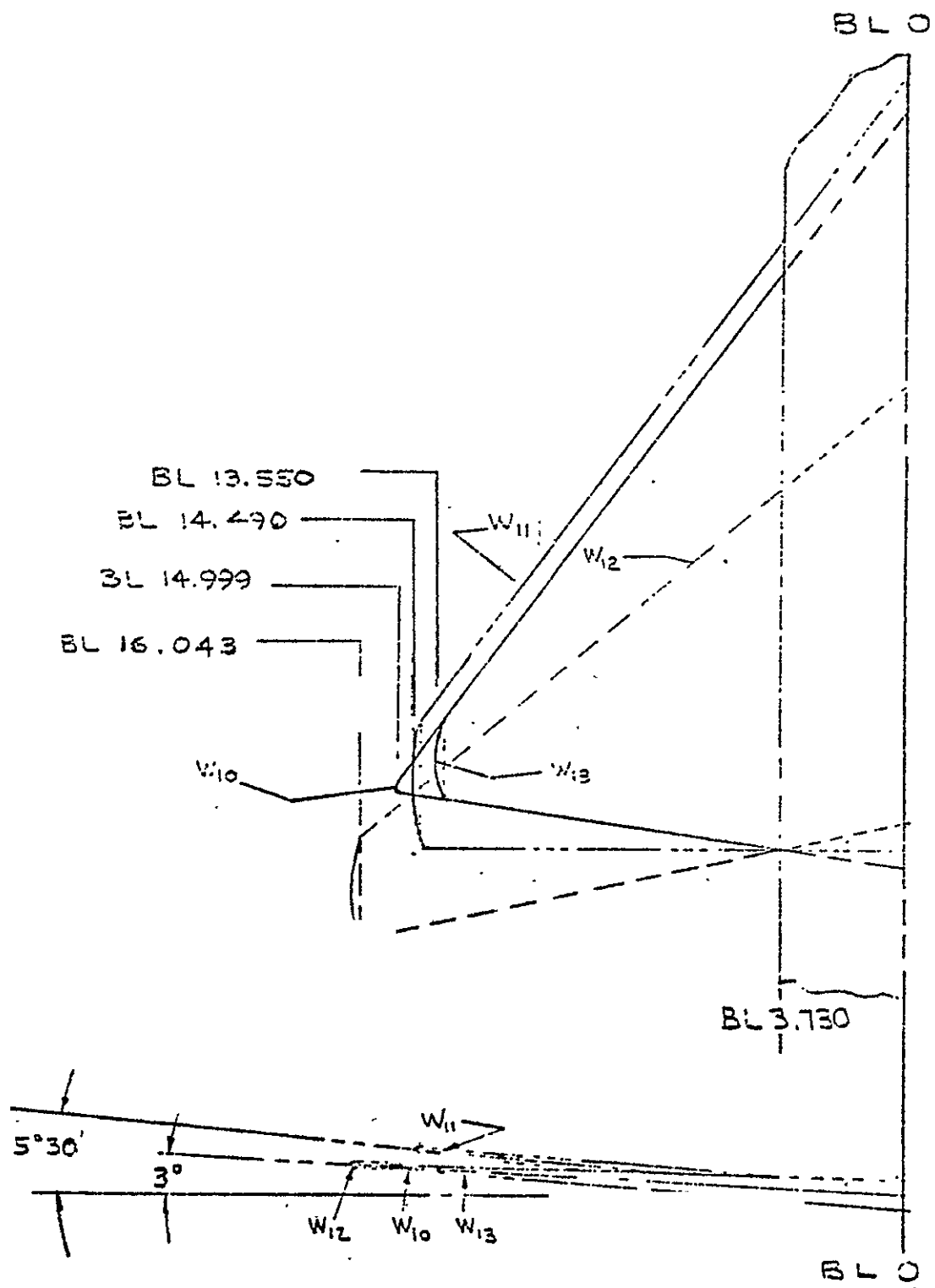


FIGURE 25. WING COMPARISONS

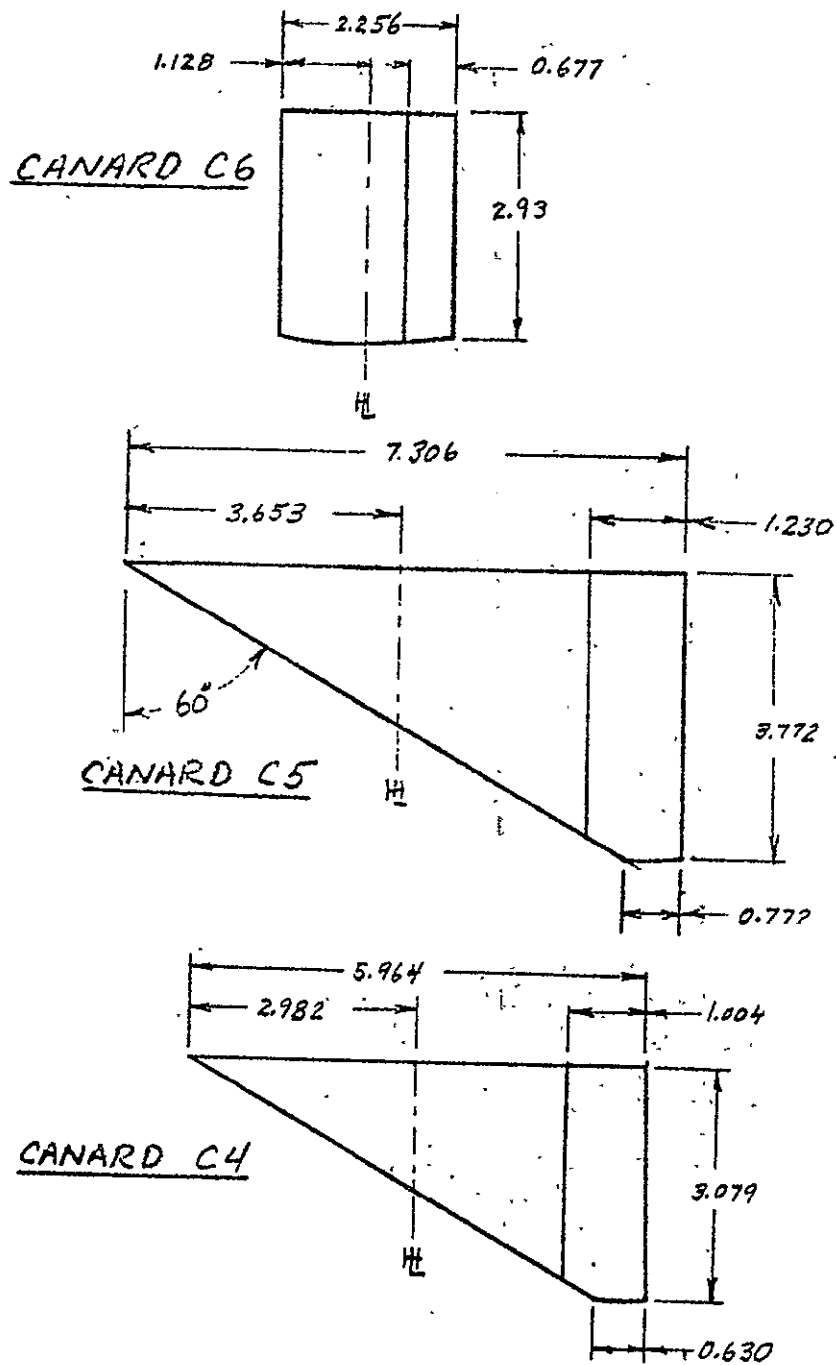


FIGURE 26

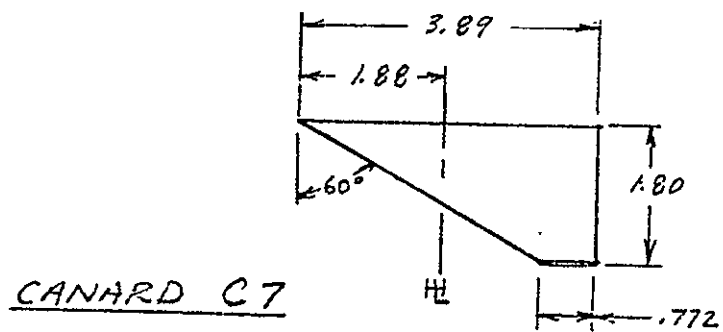
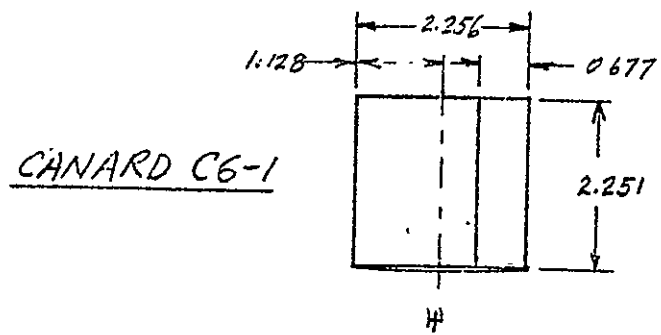


FIGURE 27.

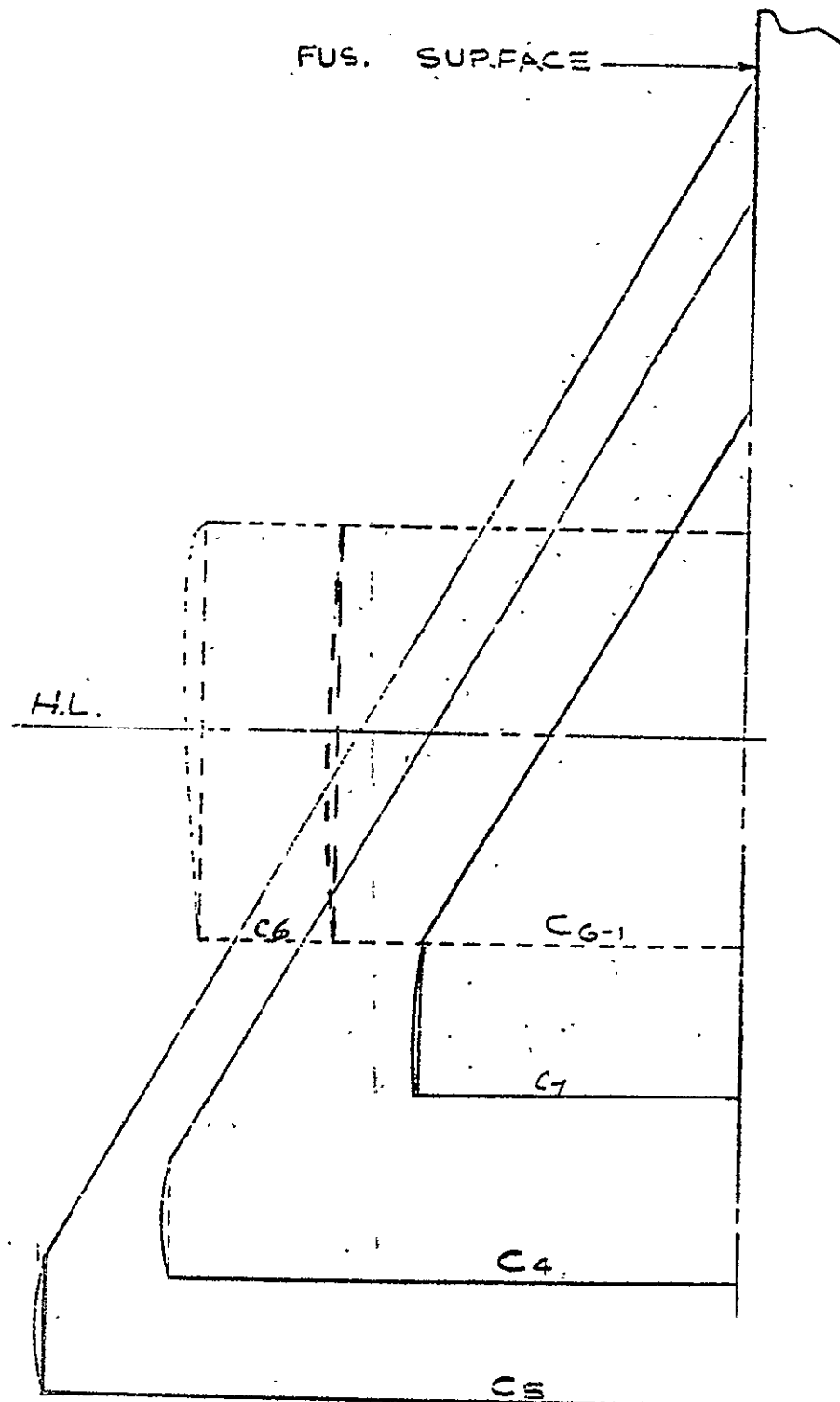


FIGURE 28. CANARD COMPARISON

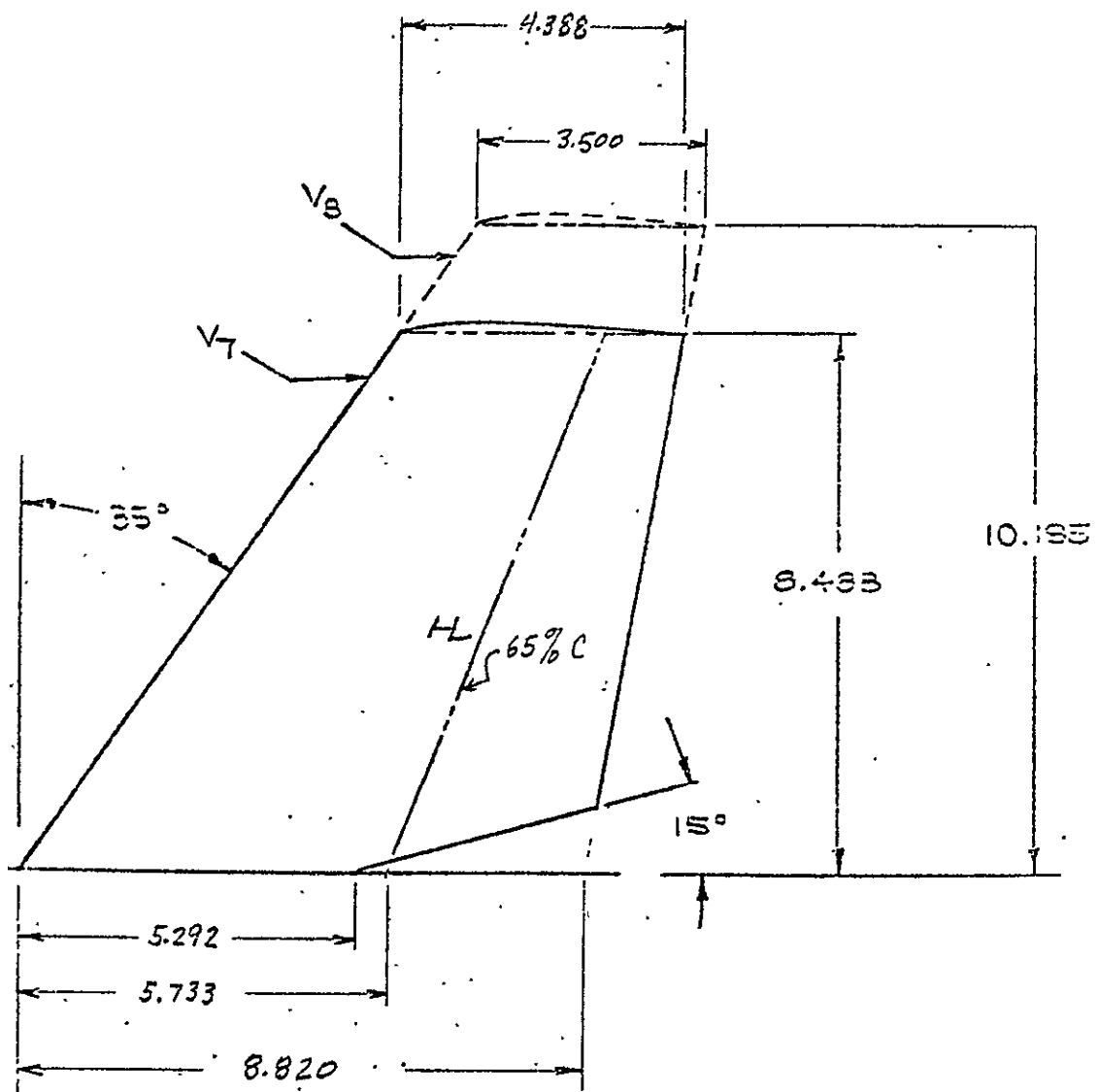
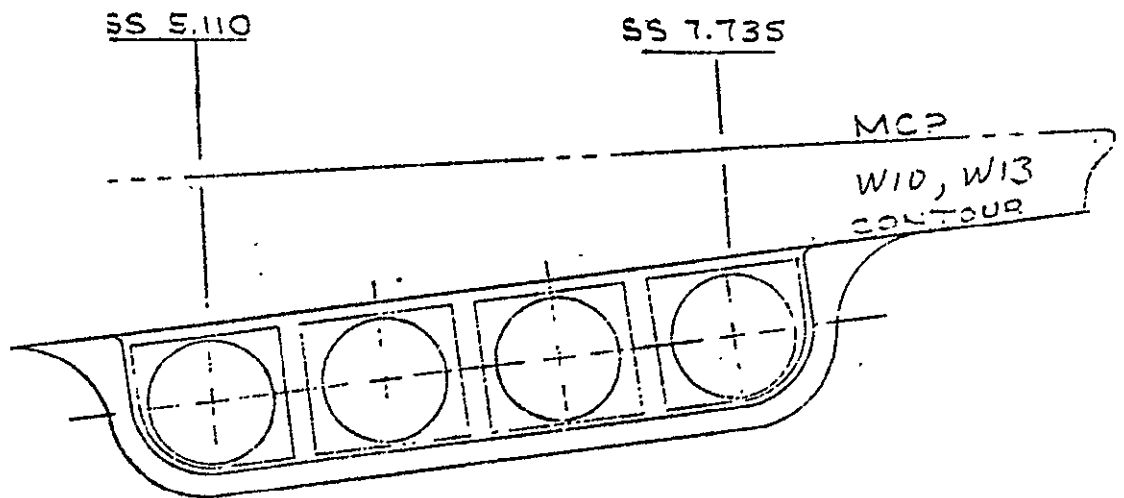
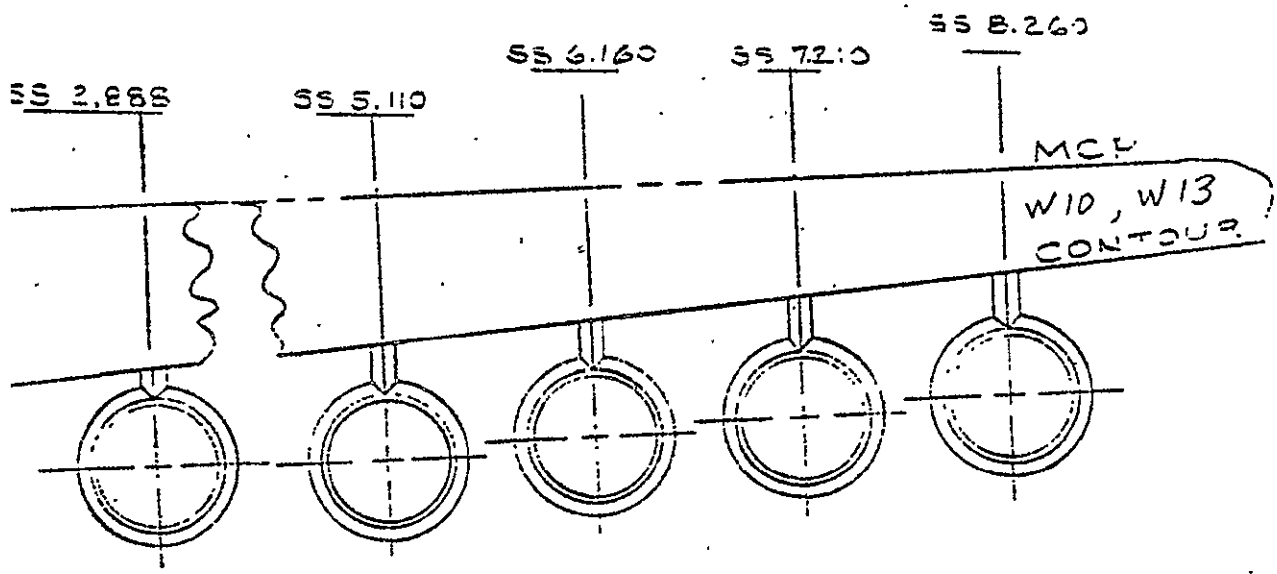


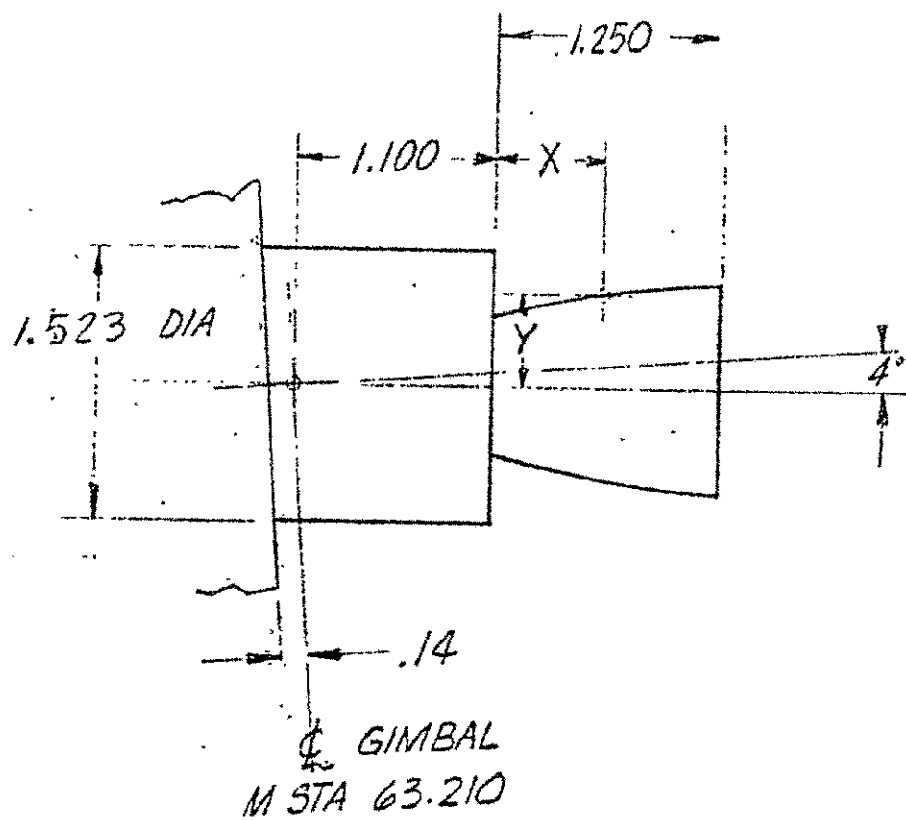
FIGURE 29. VERTICAL TAILS V7 AND V8 . .

# NACELLES E<sub>31</sub>



# NACELLES E<sub>32</sub>





X	Y
.000	.38
.200	.445
.400	.485
.600	.514
.800	.533
1.000	.560
1.200	.579
1.250	.583

FIGURE 31. ROCKET ENGINE, RL

TABLE III

MODEL COMPONENT: BODY - B19GENERAL DESCRIPTION: Basic body for B-15B delta wing configuration.DRAWING NUMBER: FW ZA-213

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length (to T.E. of wing W10)	<u>229.7 ft</u>	<u>48.248 in</u>
Max. Width	<u>32.25 ft</u>	<u>6.772 in</u>
Max. Depth (F.S. 57-823)	<u>37.49 ft</u>	<u>7.873 in</u>
Fineness Ratio	<u>6.13</u>	<u>6.13</u>
Area		
* Max. Cross-Sectional (F.S. 57.823)	<u>1059 sq.ft.</u>	<u>46.7 sq. in</u>
Planform	<u>6773 sq.ft.</u>	<u>298.7 sq. in</u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>998 sq. ft.</u>	<u>44.011 sq. in</u>

\* Wing off fairing



MODEL COMPONENT: WING W10

GENERAL DESCRIPTION: Basic symmetric delta wing with sharp wing tips, split elevons and has a total of 4714 ft<sup>2</sup> full scale exposed area.

DRAWING NUMBER: ZW-213 (sheet 4)

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area	7797 sq.ft.	343.8 sq.in.
Planform		
Wetted	145 Ft	30.44 in.
Span (equivalent)	2.35	2.35
Aspect Ratio		
Rate of Taper	0	0
Taper Ratio	3°	3°
Dihedral Angle, degrees	2°	2°
Incidence Angle, degrees		
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees	53°	53°
Leading Edge	-8.95°	-8.95°
Trailing Edge	44°	44°
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	107.6 Ft.	22.593 in.
Tip, (equivalent)	1.50 Ft	~0
MAC	71.71 Ft	15.062 in.
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section	NACA0010-64	NACA0010-64
Root		
Tip		

EXPOSED DATA

Area	4714 sq. ft.	208.0 sq.in.
Span, (equivalent)	109 Ft	22.980 in.
Aspect Ratio	2.62	2.62
Taper Ratio	0	0
Chords		
Root	83.6 Ft	17.567 in.
Tip	1.50 Ft	~0
MAC	55.74 Ft.	11.705 in.
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE V

MODEL COMPONENT: WING W11

GENERAL DESCRIPTION: Existing cambered delta wing reworked to fit the present  
body. This wing does not have split elevons.

DRAWING NUMBER: ZW-213 (sheet 12)DIMENSIONS:FULL-SCALE  
(Scaled Up)MODEL SCALETOTAL DATA

## Area

Planform

8613 sq.ft.

379.84 sq.in

Wetted

Span (equivalent)

138.0 Ft.

28.98 in.

Aspect Ratio

2.211

2.211

Rate of Taper

1.319

1.319

Taper Ratio

0.1651

0.1651

Dihedral Angle, degrees

5.5°

5.5°

Incidence Angle, degrees

2°

2°

Aerodynamic Twist, degrees

0°

0°

Toe-In Angle

Cant Angle

Sweep Back Angles, degrees

Leading Edge

53°

53°

Trailing Edge

0°

0°

0.25 Element Line

## Chords:

Root (Wing Sta. 0.0)

109.0 ft

22.890 in

Tip, (equivalent)

18 ft

3.78 in

MAC

74.0 ft

15.539 in

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

## Airfoil Section

Root

4408

4408

Tip

4408

4408

EXPOSED DATA

## Area

5460 sq.f

241.0 sq.in

Span, (equivalent)

102.5 ft

21.520 in

Aspect Ratio

1.907

1.907

Taper Ratio

0.2009

0.2009

## Chords

Root

89.67 ft.

18.830 in.

Tip

18.0 ft.

3.78 in.

MAC

61.76 ft

12.97 in.

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

TABLE VI

MODEL COMPONENT: WING W12GENERAL DESCRIPTION: Alternate swept wing.DRAWING NUMBER: ZW213 (sheet 6)DIMENSIONS:FULL-SCALE  
(Scaled Up)MODEL SCALETOTAL DATA

Area		
Planform	<u>5850 sq.ft.</u>	<u>258.0 sq.in.</u>
Wetted		
Span (equivalent)	<u>153 ft</u>	<u>32.130 in</u>
Aspect Ratio	<u>4.0</u>	<u>4.0</u>
Rate of Taper		
Taper Ratio	<u>0.235</u>	<u>0.235</u>
Dihedral Angle, degrees	<u>3</u>	<u>3</u>
Incidence Angle, degrees	<u>2°</u>	<u>2°</u>
Aerodynamic Twist, degrees	<u>0°</u>	<u>0°</u>
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	<u>40°</u>	<u>40°</u>
Trailing Edge	<u>12.25°</u>	<u>12.25°</u>
0.25 Element Line	<u>34°</u>	<u>34°</u>
Chords:		
Root (Wing Sta. 0.0)	<u>61.92 ft</u>	<u>13.003 in</u>
Tip, (equivalent)	<u>14.55 ft</u>	<u>3.055 in</u>
MAC	<u>43.10 ft</u>	<u>9.056 in</u>
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	<u>NACA0010-64</u>	
Tip	<u>NACA0010-64</u>	

EXPOSED DATA

Area	<u>3843 sq.ft.</u>	<u>169.5 sq.in.</u>
Span, (equivalent)	<u>117.5 ft</u>	<u>24.670 in</u>
Aspect Ratio	<u>3.59</u>	<u>3.59</u>
Taper Ratio	<u>0.286</u>	<u>0.286</u>
Chords		
Root	<u>50.92 ft</u>	<u>10.694 in</u>
Tip	<u>14.55 ft</u>	<u>3.055 in</u>
MAC	<u>36.07 ft</u>	<u>7.575 in</u>
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE VII

MODEL COMPONENT: WING W13

GENERAL DESCRIPTION: Basic wing W10 with clipped tips, split elevons and  
a full scale exposed area of 4600 ft<sup>2</sup>.

DRAWING NUMBER: ZW-213 (sheet 4)

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u> (Scaled Up)	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area		
Planform	<u>7692 sq.ft.</u>	<u>339.0 sq.in.</u>
Wetted		
Span (equivalent)	<u>128 ft</u>	<u>26.884 in</u>
Aspect Ratio	<u>2.13</u>	<u>2.13</u>
Rate of Taper		
Taper Ratio	<u>0.1168</u>	<u>0.1168</u>
Diehedral Angle, degrees	<u>3°</u>	<u>3°</u>
Incidence Angle, degrees	<u>2°</u>	<u>2°</u>
Aerodynamic Twist, degrees		
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	<u>53°</u>	<u>53°</u>
Trailing Edge	<u>-8.95°</u>	<u>-8.95°</u>
0.25 Element Line	<u>44°</u>	<u>44°</u>
Chords:		
Root (Wing Sta. 0.0)	<u>107.6 ft</u>	<u>22.593 in.</u>
Tip, (equivalent)	<u>12.57 ft</u>	<u>2.639 in.</u>
MAC	<u>72.62 ft</u>	<u>15.246 in</u>
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	<u>NACA0010-64</u>	
Tip	<u>NACA0010-64</u>	
<u>EXPOSED DATA</u>		
Area	<u>4609 sq.ft.</u>	<u>203.5 sq.in.</u>
Span, (equivalent)	<u>95.7 ft</u>	<u>20.112 in</u>
Aspect Ratio	<u>2.063</u>	<u>2.063</u>
Taper Ratio	<u>0.1503</u>	<u>0.1503</u>
Chords		
Root	<u>33.65 ft</u>	<u>17.567 in.</u>
Tip	<u>2.57 ft</u>	<u>2.639 in.</u>
MAC	<u>56.86 ft</u>	<u>11.94 in</u>
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE VIII

MODEL COMPONENT: CANARD C4

GENERAL DESCRIPTION: Basic Delta Canard with 460 ft<sup>2</sup> (two canards) of full  
scale exposed area (10% of wing W13). Airfoil NACA0014-(6.6)(5)  
Canard rotates at 50% of root chord.

DRAWING NUMBER: ZW-213 sheet 3

<u>DIMENSIONS:</u> (per canard)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>230 sq.ft.</u>	<u>10.152 sq.in.</u>
Span (equivalent)	<u>14.66 ft.</u>	<u>3.079 in.</u>
Inb'd equivalent chord	<u>28.40 ft.</u>	<u>5.964 in.</u>
Outb'd equivalent chord	<u>3.0 ft.</u>	<u>0.630 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>4.78 ft.</u>	<u>1.004 in.</u>
At Outb'd equiv. chord	<u>          </u>	<u>          </u>
Sweep Back Angles, degrees		
Leading Edge	<u>60°</u>	<u>60°</u>
Trailing Edge	<u>0°</u>	<u>0°</u>
Hingeline	<u>0°</u>	<u>0°</u>
Area Moment (Normal to hinge line)	<u>          </u>	<u>          </u>

TABLE XI

MODEL COMPONENT: Canard C6-1

GENERAL DESCRIPTION: Modified rectangular canard with 230 ft<sup>2</sup> full scale  
exposed area (5.01% of W13). Airfoil section NACA 0014.5 (MOD) canard rotates  
at 50% of root chord.

DRAWING NUMBER: NoneDIMENSIONS: (Per canard, exposed)

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>115. sq. ft</u>	<u>5.075 sq. in</u>
Span (equivalent)	<u>10.70 ft</u>	<u>2.250 in</u>
Inb'd equivalent chord	<u>10.74 ft</u>	<u>2.256 in</u>
Outb'd equivalent chord	<u>10.74 ft</u>	<u>2.256 in</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>3.22 ft</u>	<u>0.677 in</u>
At Outb'd equiv. chord	<u>3.22 ft</u>	<u>0.677 in</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0°</u>	<u>0°</u>
Trailing Edge	<u>0°</u>	<u>0°</u>
Hingeline	<u>0°</u>	<u>0°</u>
Area Moment (Normal to hinge line)	<u>          </u>	<u>          </u>

MODEL COMPONENT: Canard C7

GENERAL DESCRIPTION: Small delta canard with 194 ft<sup>2</sup> of full scale exposed area (4.21% of W13). Airfoil NACA 0014-(6.6)(5). Canard rotates at 50% of root chord.

DRAWING NUMBER: NoneDIMENSIONS: (per canard)

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>97 sq. ft</u>	<u>4.29 sq. in</u>
Span (equivalent)	<u>8.57 ft</u>	<u>1.8 in</u>
Inb'd equivalent chord	<u>19.05 ft</u>	<u>4.0 in</u>
Outb'd equivalent chord	<u>3.67 ft</u>	<u>0.772 in</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord		
At Outb'd equiv. chord		
...Sweep Back Angles, degrees		
Leading Edge	<u>60°</u>	<u>60°</u>
Trailing Edge	<u>0°</u>	<u>0°</u>
Hingeline (flap)		<u>9°</u>
Area Moment (Normal to hinge line)		

TABLE XIII

MODEL COMPONENT: VERTICAL TAIL V7GENERAL DESCRIPTION: Basic vertical tail of airfoil section NACA0012-64(MOD)DRAWING NUMBER: ZV-213 (sheet 2)

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>1228 sq. ft.</u>	<u>54.156 sq.in.</u>
Span (equivalent)	<u>40.42 ft.</u>	<u>8.488 in.</u>
Inb'd equivalent chord	<u>42.0 ft.</u>	<u>8.820 in.</u>
Outb'd equivalent chord	<u>20.89 ft.</u>	<u>4.386 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>14.7 ft.</u>	<u>3.087 in.</u>
At Outb'd equiv. chord	<u>8.05 ft.</u>	<u>1.690 in.</u>
Sweep Back Angles, degrees		
Leading Edge	<u>35°</u>	<u>35°</u>
Trailing Edge	<u>10°</u>	<u>10°</u>
Hingeline	<u>20°</u>	<u>20°</u>
Area Moment (Normal to hinge line)	<u>                    </u>	<u>                    </u>



TABLE XIV

MODEL COMPONENT:	VERTICAL TAIL V 8
GENERAL DESCRIPTION:	Alternate vertical tail of airfoil section
	NACA0012-64(MOD)

DRAWING NUMBER: ZV-213 (sheet 2)

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>380 sq.f.t</u>	<u>60.856 sq.in.</u>
Span (equivalent)	<u>48.5 ft.</u>	<u>10.185 in.</u>
Inb'd equivalent chord	<u>42.0 ft.</u>	<u>8.820 in.</u>
Outb'd equivalent chord	<u>16.7 ft.</u>	<u>3.500 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>14.7 ft.</u>	<u>3.087 in.</u>
At Outb'd equiv. chord	<u>8.05 ft.</u>	<u>1.690 in.</u>
Sweep Back Angles, degrees		
Leading Edge	<u>35°</u>	<u>35°</u>
Trailing Edge	<u>10°</u>	<u>10°</u>
Hingeline	<u>20°</u>	<u>20°</u>
Area Moment (Normal to hinge line)	<u>          </u>	<u>          </u>

TABLE XV

MODEL COMPONENT: ENGINE E31GENERAL DESCRIPTION: Alternate fly-back engines, four per nacelle wing  
mounted under delta wings W10 and W13.DRAWING NUMBER: ZN-213 (seet )

<u>DIMENSIONS:</u> (per nacelle)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	<u>3.08 in.</u>
Max. Width (at nacelle)	_____	<u>3.70 in.</u>
Max. Depth (inlet)	_____	<u>0.875 in.</u>
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional (inlet)	_____	<u>3.21 sq.in.</u>
Planform (includes fairings)	_____	<u>13.67 sq.in.</u>
Wetted	_____	_____
Base	_____	_____

MODEL COMPONENT: ENGINE E32

GENERAL DESCRIPTION: Basic fly-back engines individually suspended under  
the wing and body. Eight engines are located under wings W10 and W13, with  
two more located under the body. Through airflow is allowed.

DRAWING NUMBER: ZN-213 (sheet 2 and 3)

<u>DIMENSIONS:</u>	(per engine without pylons)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length			<u>2.555 in.</u>
Max. Width			<u>0.805 in.</u>
Max. Depth			<u>0.805 in.</u>
Fineness Ratio			<u>3.17</u>
Area			
Max. Cross-Sectional			<u>0.509 sq.in.</u>
Planform			<u>2.056 sq.in.</u>
Wetted			
Base			

TABLE XVII

MODEL COMPONENT: ROCKET ENGINES R1

GENERAL DESCRIPTION: Rocket engines and fairings. A total of eight are  
located on outside ring of base plate. Dimensions given are for exposed  
model combustion chamber and nozzle.

DRAWING NUMBER: ZN-213 (sheet 4)

<u>DIMENSIONS:</u> (per rocket engine)	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	_____	<u>2.437 in.</u>
Max. Width (radius)	_____	<u>0.762 in.</u>
Max. Depth (radius)	_____	<u>0.762 in.</u>
Fineness Ratio	_____	_____
Area		
Max. Cross-Sectional	_____	<u>0.456 sq.in.</u>
Planform	_____	<u>3.102 sq.in.</u>
Wetted	_____	_____
Base	_____	_____

# NOMENCLATURE

(General)

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$\alpha$	ALPHA	angle of attack, angle between the projection of the wind $X_w$ -axis on the body X, Z-plane and the body X-axis; degrees
$\beta$	BETA	sideslip angle, angle between the wind $X_w$ -axis and the projection of this axis on the body X-Z-plane; degrees
$\psi$	PSI	yaw angle, angle of rotation about the body Z-axis, positive when the positive X-axis is rotated toward the positive Y-axis; degrees
$\phi$	PHI	roll angle, angle of rotation about the body X-axis, positive when the positive Y-axis is rotated toward the positive Z-axis; degrees
$\rho$		air density; $K_g/m^3$ , slugs/ft <sup>3</sup>
$a$		speed of sound; m/sec, ft/sec
$V$		speed of vehicle relative to surrounding atmosphere; m/sec, ft/sec
$q$	$Q(PSI)$ $Q(PSF)$	dynamic pressure; $1/2\rho V^2$ , psi, psf
$M$	MACH	Mach number; $V/a$
$RN/L$	$RN/L$	Reynolds number per unit length; million/ft
$p$		static pressure; psi
$P$		total pressure; psi
$C_p$	CP	pressure coefficient; $(p-p_\infty)/q$

NOMENCLATURE (Continued)

Reference & C. G. Definitions

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
S		wing area; $m^2$ , $ft^2$
S	SREF	reference area; $m^2$ , $ft^2$
$\bar{c}$		wing mean aerodynamic chord or reference chord; m, ft, in (see $\ell_{ref}$ or LREF)
$\ell_{ref}$	LREF	reference length; m, ft, in.; (see $\bar{c}$ )
$b_{ref}$	BREF	wing span or reference span; m, ft, in
$A_b$		base area; $m^2$ , $ft^2$ , $in^2$
c. g.		center of gravity
MRP	MRP	abbreviation for moment reference point
	XMRP	abbreviation for moment reference point on X-axis
	YMRP	abbreviation for moment reference point on Y-axis
	ZMRP	abbreviation for moment reference point on Z-axis

# NOMENCLATURE (Continued)

## Axis System General

<u>SYMBOL</u>	<u>DEFINITION</u>
F	force; F, lbs
M	moment; M, in-lb

<u>Subscript</u>	<u>Definition</u>
N	normal force
A	axial force
L	lift force
D	drag force
Y	force or moment about the Y axis
Z	moment about the Z axis
X	moment about the X axis
s	stability axis system
w	wind axis system
ref	reference conditions
$\infty$	free stream conditions
t	total conditions
b	base

NOMENCLATURE (Continued)  
Body & Stability Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
<u>Body Axis System</u>		
$C_N$	CN	normal force coefficient; $F_N/qS$
$C_A$	CA	axial force coefficient; $F_A/qS$
$C_{A_b}$	CAB	base axial force coefficient; $\begin{bmatrix} -1 \\ \end{bmatrix} \begin{bmatrix} (P_b - P_\infty)/q \end{bmatrix} (A_b/S)$
$C_{A_f}$	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
$C_n$	CYN	yawing moment coefficient; $M_Z/qS b_{ref}$
$C_l$	CBL	rolling moment coefficient; $M_X/qS b_{ref}$
<u>Common to Both Axis Systems</u>		
$C_m$	CIM	pitching moment coefficient; $M_Y/qS l_{ref}$
$C_y$	CY	side force coefficient; $F_Y/qS$
<u>Stability Axis System</u>		
$C_L$	CL	lift force coefficient; $F_L/qS$
$C_D$	CD	drag force coefficient; $F_D/qS$
$C_{D_b}$	CDB	base drag coefficient
$C_{D_f}$	CDF	forebody drag coefficient; $C_D - C_{D_b}$
$C_n$	CIN	yawing moment coefficient; $M_{Z,s}/qS b_{ref}$
$C_l$	CSL	rolling moment coefficient; $M_{X,s}/qS b_{ref}$
$L/D$	L/D	lift-to-drag ratio; $C_L/C_D$
$L/D_f$	L/DF	lift to forebody drag ratio; $C_L/C_{D_f}$



# NOMENCLATURE (Continued)

## Surface Definitions

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$i_t$	HORIZT	horizontal tail incidence; positive when trailing edge down; degrees
$\delta$		symmetrical surface deflection angle; degrees; positive deflections are:
	AILRON	aileron - total aileron deflection; (left aileron - right aileron)/2
	CANARD	canard - trailing edge down
	ELEVON	elevon - trailing edge down
	ELEVTR	elevator - trailing edge down
	FLAP	flap - trailing edge down
	RUDDER	rudder - trailing edge to the left
	SPOILER	spoiler - trailing edge down
	TAB	tab - trailing edge down with respect to control surface
$\delta$		antisymmetrical surface deflection angle, degrees; positive trailing edge down:
	AIL-L	left aileron - trailing edge down
	AIL-R	right aileron - trailing edge down
	ELVN-L	left elevon - trailing edge down
	ELVN-R	right elevon - trailing edge down
	SPLR-L	left spoiler - trailing edge down
	SPLR-R	right spoiler - trailing edge down

<u>SURFACE SUBSCRIPTS</u>	<u>DEFINITION</u>
a	aileron
b	base
c	canard
e	elevator or elevon
f	flap
r	rudder or ruddervator
s	spoiler
t	tail

# NOMENCLATURE (Continued)

In addition to the standard SADSAC notation, the following definitions are special to this test:

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
$\delta_{e_{XY}}$	DEXY	Deflection angle of elevons in degrees positive trailing edge down based upon notation:  X = L left side X = R right side Y = $\phi$ outboard elevon X = I inboard elevon
$\delta_{C_X}$	DCX	Canard deflection angle in degrees positive trailing edge down, based upon notation:  X = L left canard X = R right canard
$\delta_{C_{XF}}$	DCXF	Canard flap deflection angle, positive trailing edge down, based upon notation:  X = L left canard flap X = R right canard flap
$\delta_E$	ELEVTR	Combined elevator deflection in degrees, for split elevons (DEL $\phi$ + DELI + DERI + DER $\phi$ )/4 or full span elevons (DEL $\phi$ + DERI)/2
$\delta_C$	AILRON	Combined aileron deflection in degrees, for split elevons [(DEL $\phi$ + DELI) - (DERI + DER $\phi$ )]/4 or for full span elevons, (DELI + DERI)/2
$\delta_C$	CANVTR	Combined elevator deflection of canards in degrees (DCL + DCR)/2
$\delta_{CA}$	CANRON	Combined aileron deflection of canards in degrees (DCL - DCR)/2
$\delta_{CF}$	CFLAPR	Combined canard flap deflections in degrees, (DCLF + DCRF)/2

## TABULATED DATA LISTING

A tabulated data listing, consisting of all aero data sets, both original and those created in arriving at the plotted material to be presented subsequently, is available as an addendum to this report. The tabular listing is made up in two sections:

- (a) a brief summary list of all data sets containing the identifier, the descriptor, and the resident dependent variables.
- (b) a full list of all data sets containing all resident or selected aerodynamic coefficients of the data sets as well as the above mentioned information.

The listing is currently sent on limited distribution to the following organizations:

NASA AMES	Mr. V. Stevens
NASA MSC	Mr. Ray Nelson
GD/C	Mr. R. Lanflisi

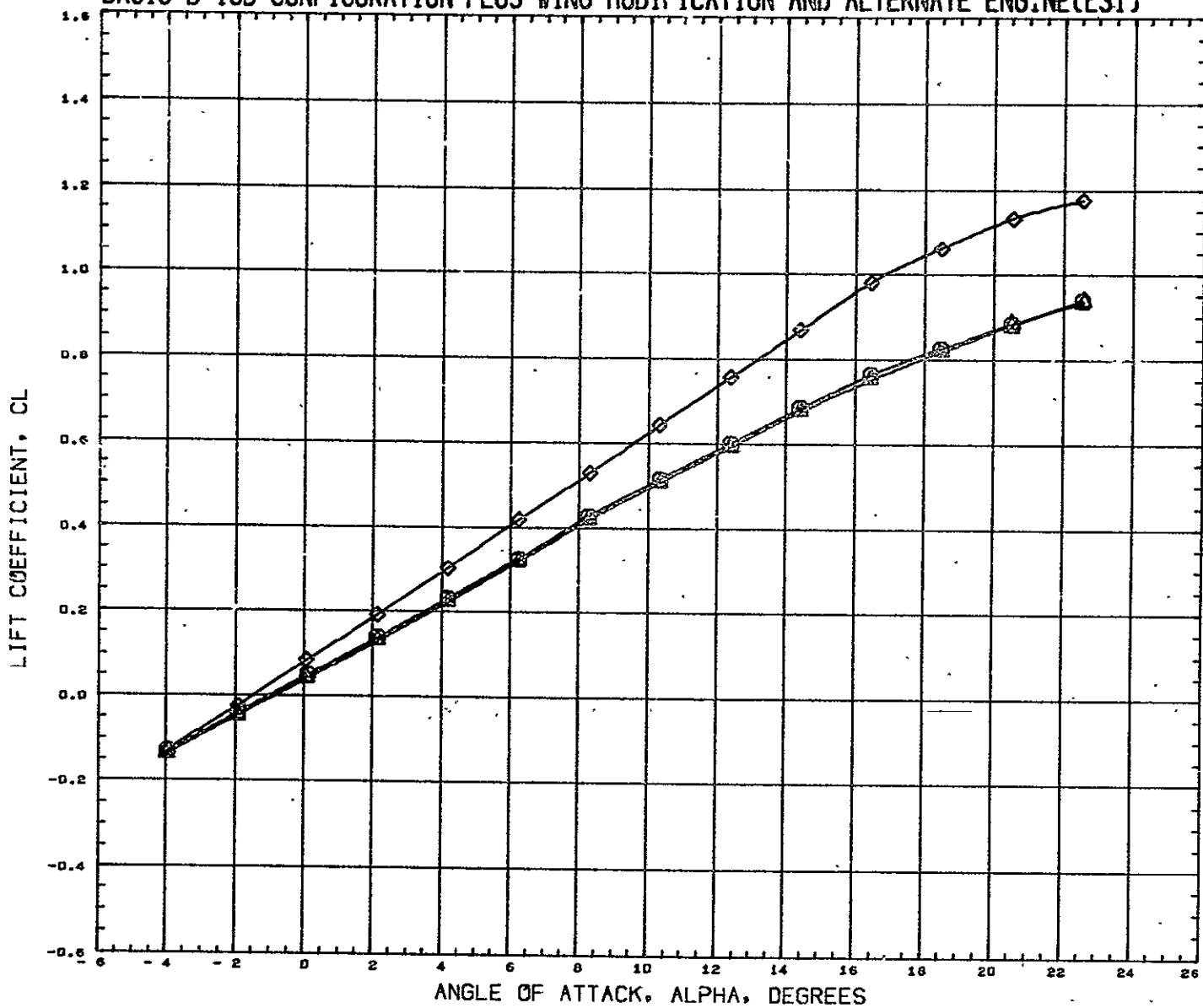
If copies of this listing are desired, please contact the above or the cognizant SADSAC personnel who, for this data, is:

W. R. Morgan  
Department 2780  
Chrysler Corporation Space Division  
New Orleans, La. 70129

(504) 255-2304

PLOTTED DATA

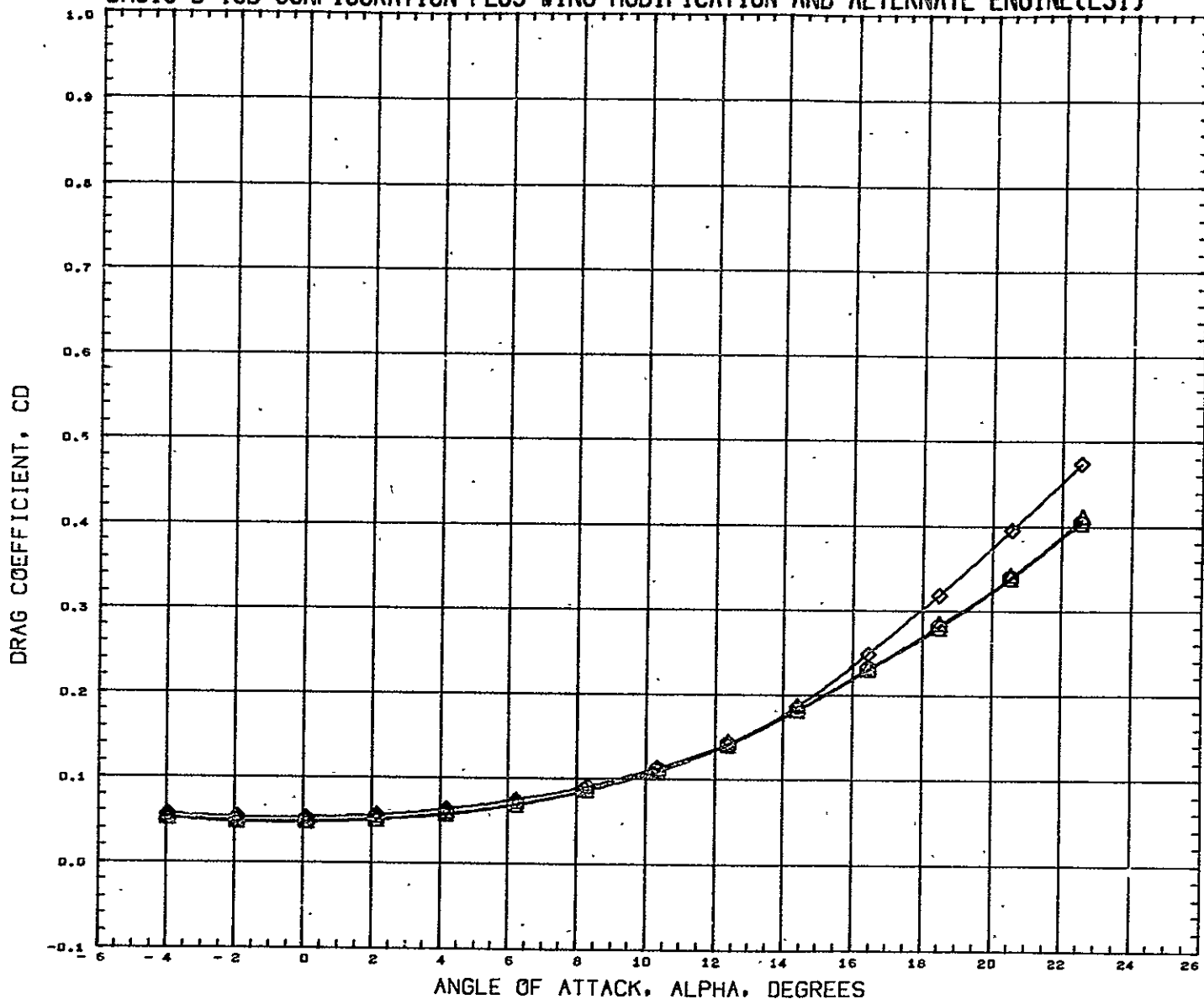
# BASIC B-15B CONFIGURATION PLUS WING MODIFICATION AND ALTERNATE ENGINE(E31)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
(BCMA13)	GDLST 587-D B19W10V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(BCMA16)	GDLST 587-D B19W10V7P1E31C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL 15.0620 IN.
(ICMA93)	GDLST 587-D B19W10-13V7P1E32C4 (POS. 1)	1.000	0.000	0.000	700	REFB 30.4400 IN.
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						YHRP 0.0000 IN.
						ZHRP 3.9380 IN.
						SCALE 0.0175

BETA 0.000

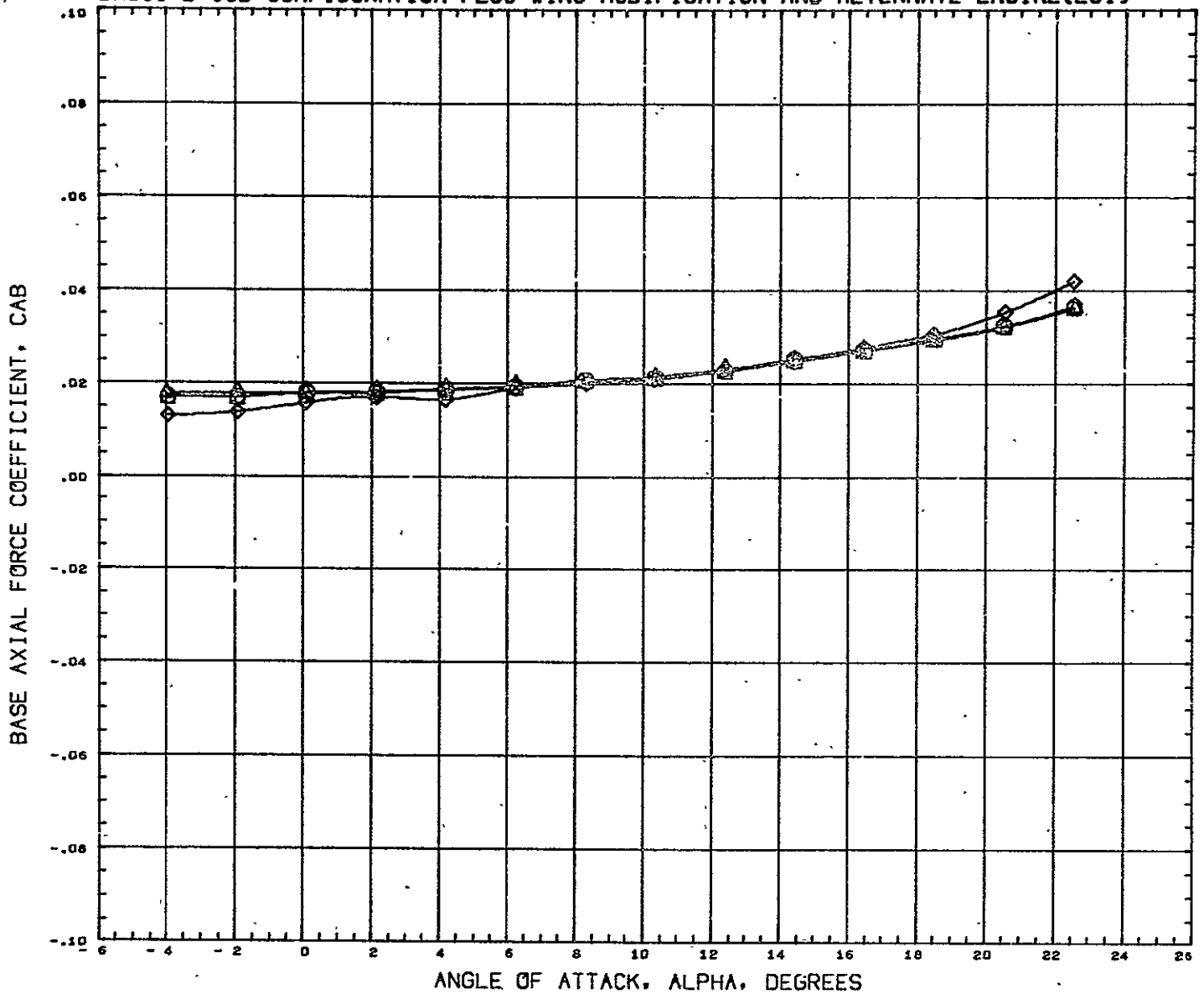
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAFR	Q	REFERENCE INFORMATION		
(BCMA13)	GDLST 587-D B19W10V7F1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	SQ. FT
(BCMA16)	GDLST 587-D B19W10V7F1E31C4 (POS. 1)	1.000	0.000	0.000	50.000	REFL	15.0620	IN.
(ICHA95)	GDLST 587-D B19W10-13V7F1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

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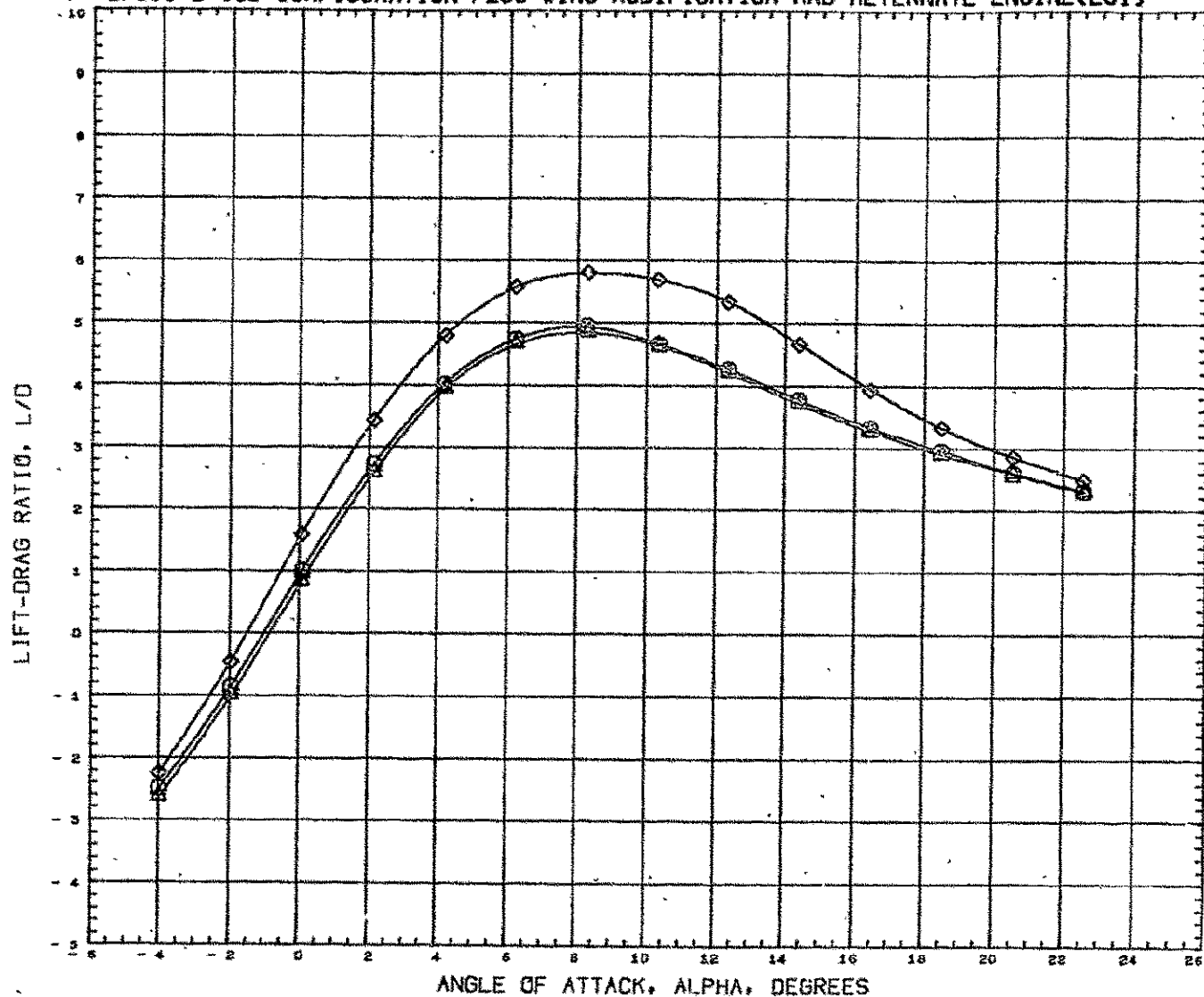
# BASIC B-15B CONFIGURATION PLUS WING MODIFICATION AND ALTERNATE ENGINE(E31)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA13)	GDLST 587-D B19W10V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(BCMA16)	GDLST 587-D B19W10V7P1E31C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ICMA93)	GDLST 587-D B19W10-13V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

ETA 0.000

# BASIC B-15B CONFIGURATION PLUS WING MODIFICATION AND ALTERNATE ENGINE(E31)

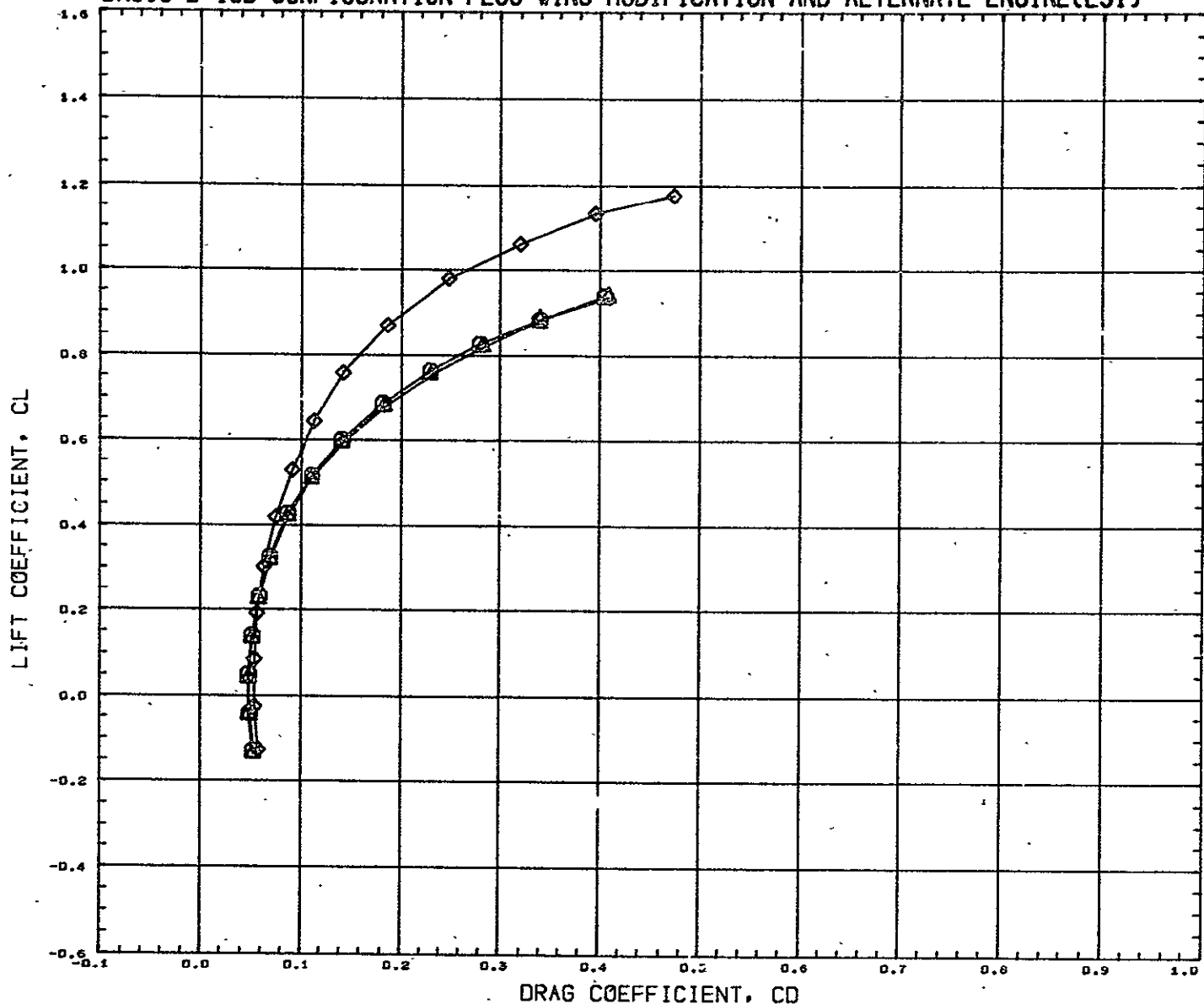


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA13)	GDLST 587-0 B19W10V7P1E32C4 (FOS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	50. IN
(BCMA16)	GDLST 587-0 B19W10V7P1E33C4 (FOS. 1)	1.000	0.000	0.000	70.000	REFL	15.0620	IN.
(ICMA93)	GDLST 587-0 B19W10-13V7P1E32C4 (FOS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
						XMRP	53.4360	IN.
						YMRP	0.0000	IN.
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						SCALE	0.0175	

BETA 0.000

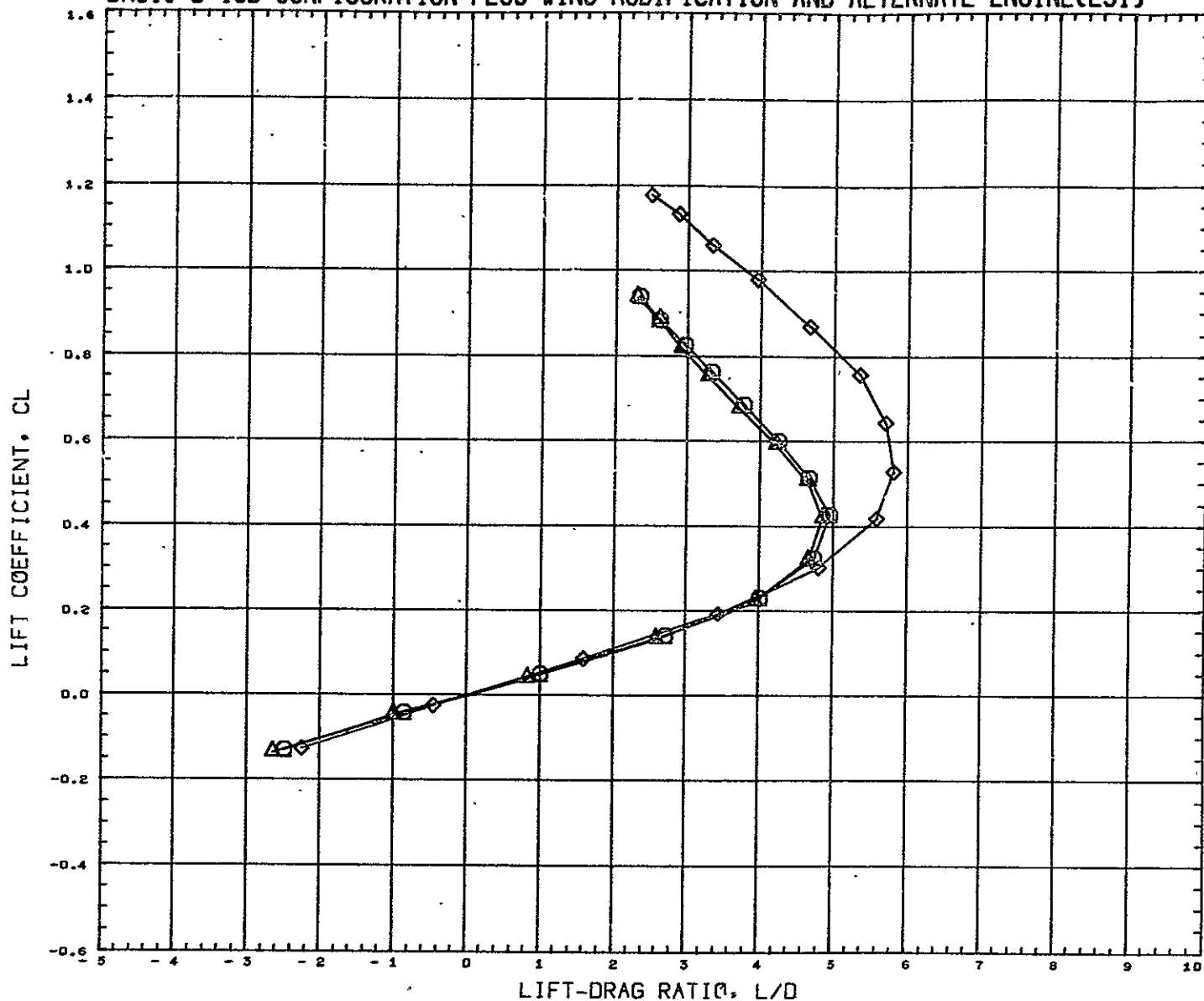


# BASIC B-15B CONFIGURATION PLUS WING MODIFICATION AND ALTERNATE ENGINE(E31)



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA13)	○	GDLST 587-0 B19W10V7P1E32C4 (POS. 1)	1.000	0.000	0.000	10.000	REFS	343.8704	58. IN
(BCMA16)	△	GDLST 587-0 B19W10V7P1E31C4 (POS. 1)	1.000	0.000	0.000	56.000	REFL	15.0620	IN.
(ICMA93)	◇	GDLST 587-0 B19W10-13V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
							XMRP	32.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9380	IN.
							SCALE	0.0175	
BETA 0.000									

# BASIC B-15B CONFIGURATION PLUS WING MODIFICATION AND ALTERNATE ENGINE(E31)



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(BCMA13) GDLST 587-0 B19W10V7F1E32C4 (POS. 1)  
 (BCMA16) GDLST 587-0 B19W10V7F1E31C4 (POS. 1)  
 (ICMA93) GDLST 587-0 B19W10-13V7F1E32C4 (POS. 1)

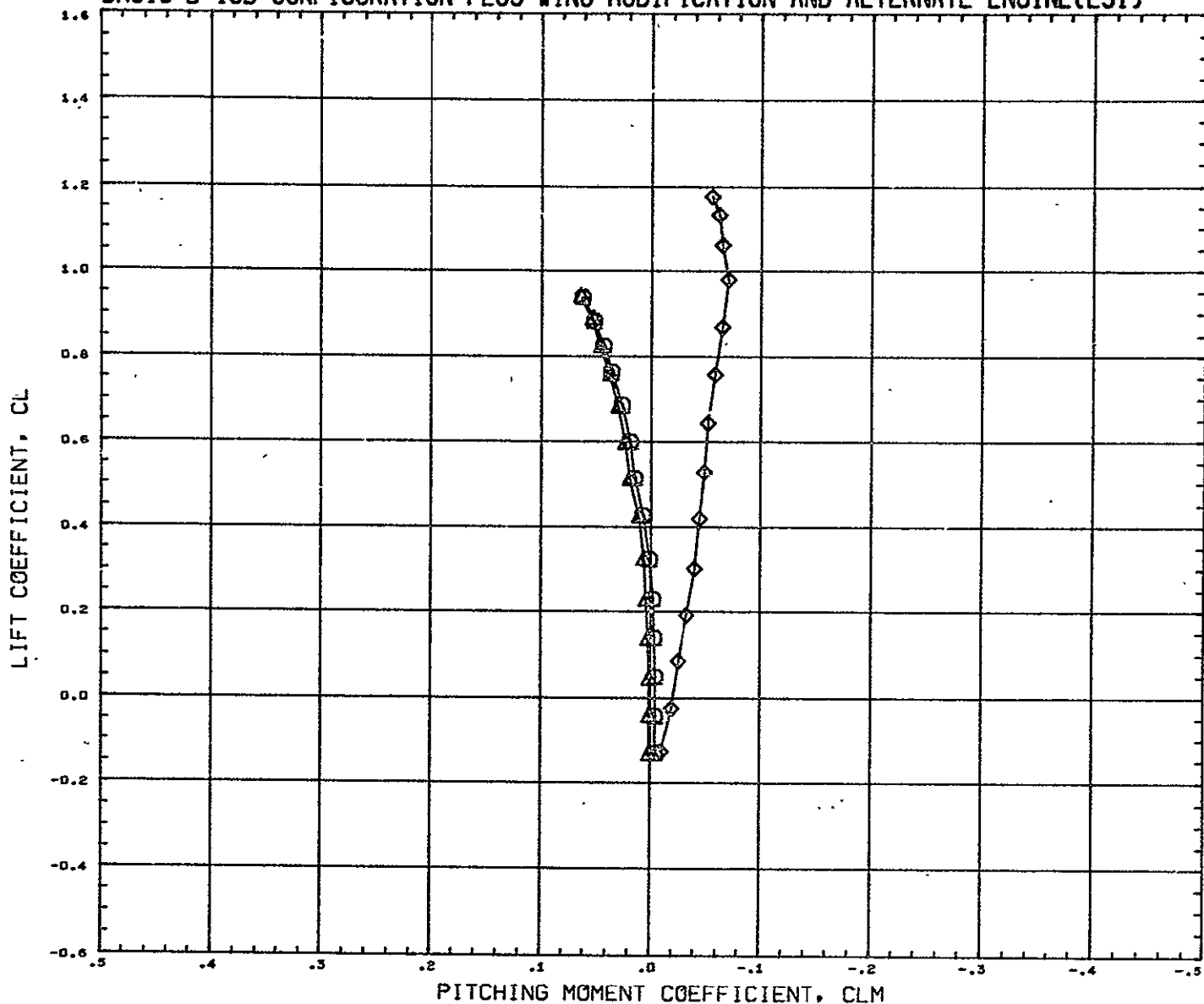
CANARD CANVTR CFLAPR Q  
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 1.000 0.000 0.000 60.000  
 1.000 0.000 0.000 60.000

REFERENCE INFORMATION

REFS 343.8704 SQ. IN  
 REFL 15.0620 IN.  
 REFB 30.4400 IN.  
 XMRP 33.4360 IN.  
 YMRP 0.0000 IN.  
 ZMRP 3.9360 IN.  
 SCALE 0.0175

BETA 0.000

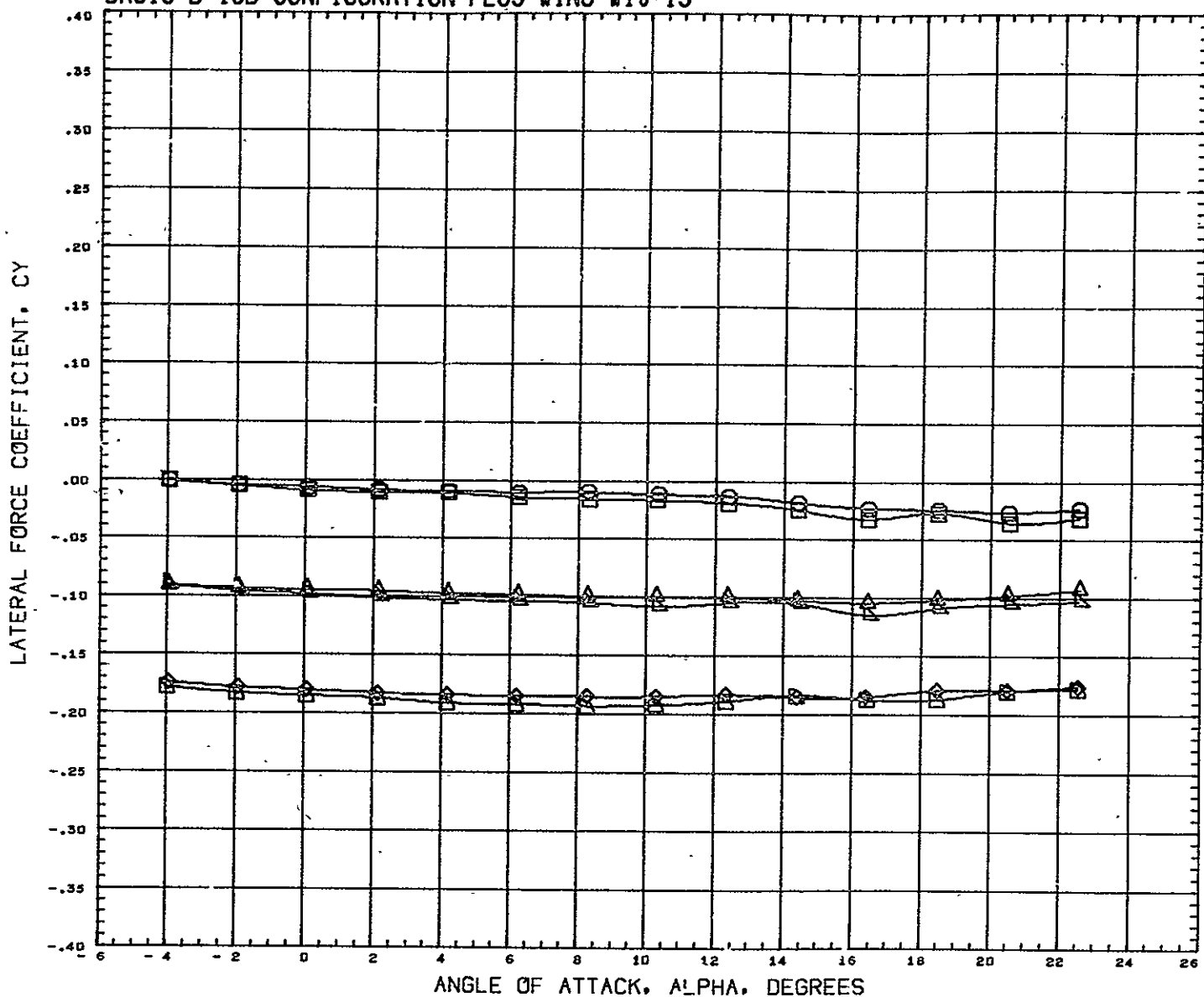
# BASIC B-15B CONFIGURATION PLUS WING MODIFICATION AND ALTERNATE ENGINE(E31)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVIR	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA13)	GDLST 587-D 819W10V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(BCMA16)	GDLST 587-D 819W10V7P1E31C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ICMA93)	GDLST 587-D 819W10-13V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

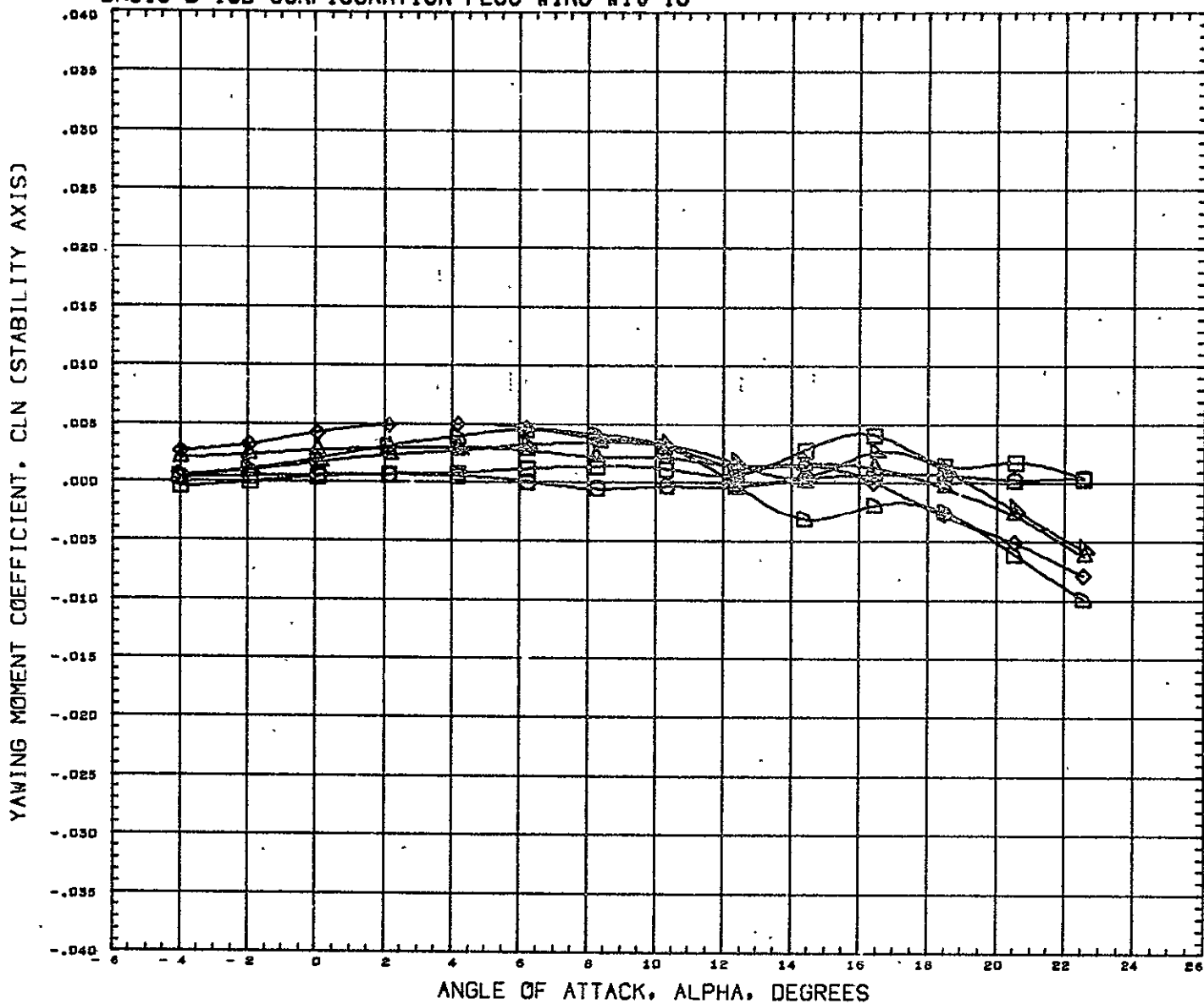
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# BASIC B-15B CONFIGURATION PLUS WING W10-13



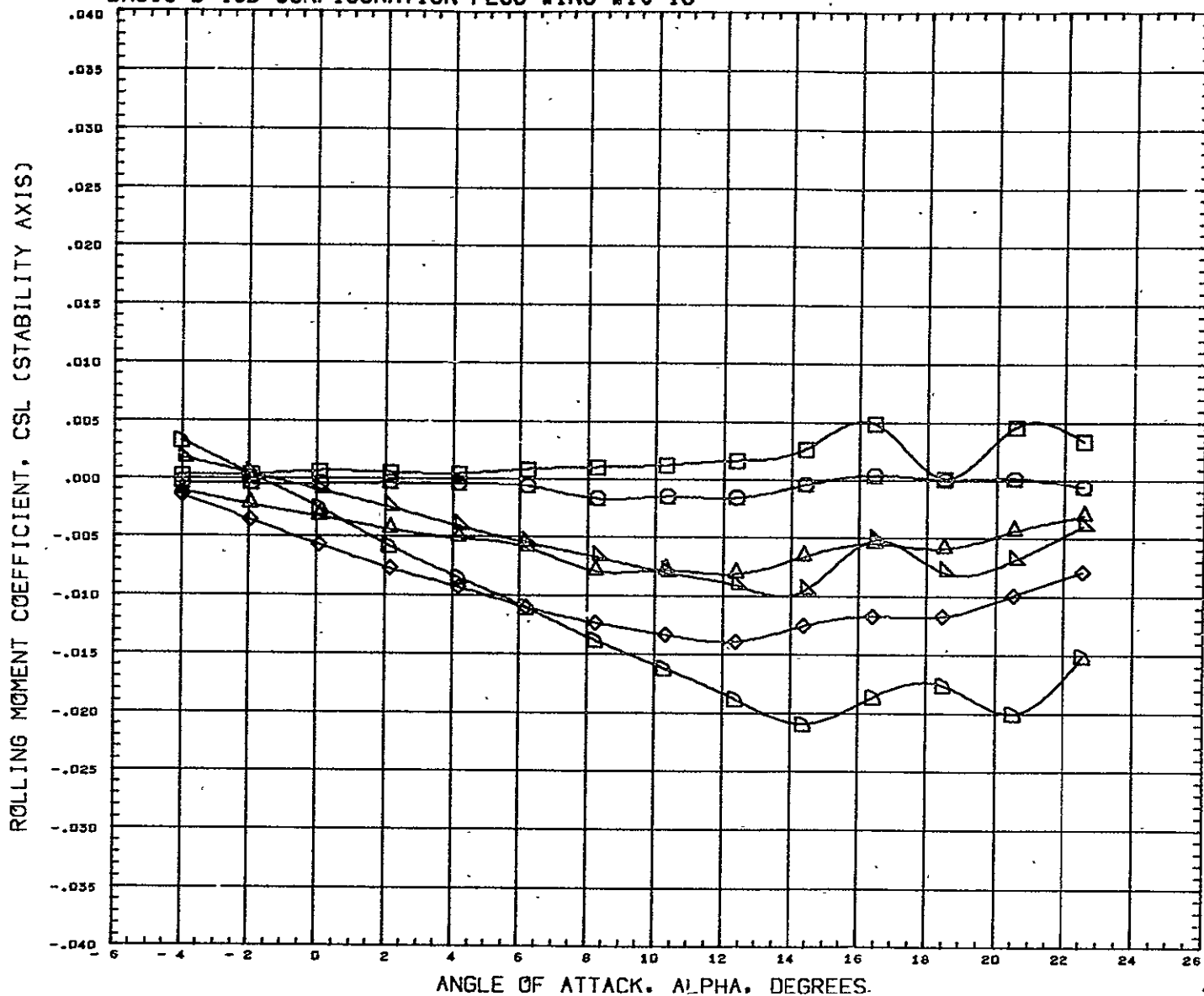
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVT	CFLAPR	Q	REFERENCE INFORMATION		
(ACMA13)	GDLST 587-0 B19W10V7P1E32C4 (POS. 1)	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN.
(ACMA14)	GDLST 587-0 B19W10V7P1E32C4 (POS. 1)	4.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ACMA15)	GDLST 587-0 B19W10V7P1E32C4 (POS. 1)	8.000	0.000	0.000	60.000	REFB	30.4400	IN.
(OCMA93)	GDLST 587-0 B19W10-13V7P1E32C4 (POS. 1)	0.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(FCMA93)	GDLST 587-0 B19W10-13V7P1E32C4 (POS. 1)	4.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(GCMA93)	GDLST 587-0 B19W10-13V7P1E32C4 (POS. 1)	8.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
CANARD 1.000						SCALE	0.0175	

# BASIC B-15B CONFIGURATION PLUS WING W10-13



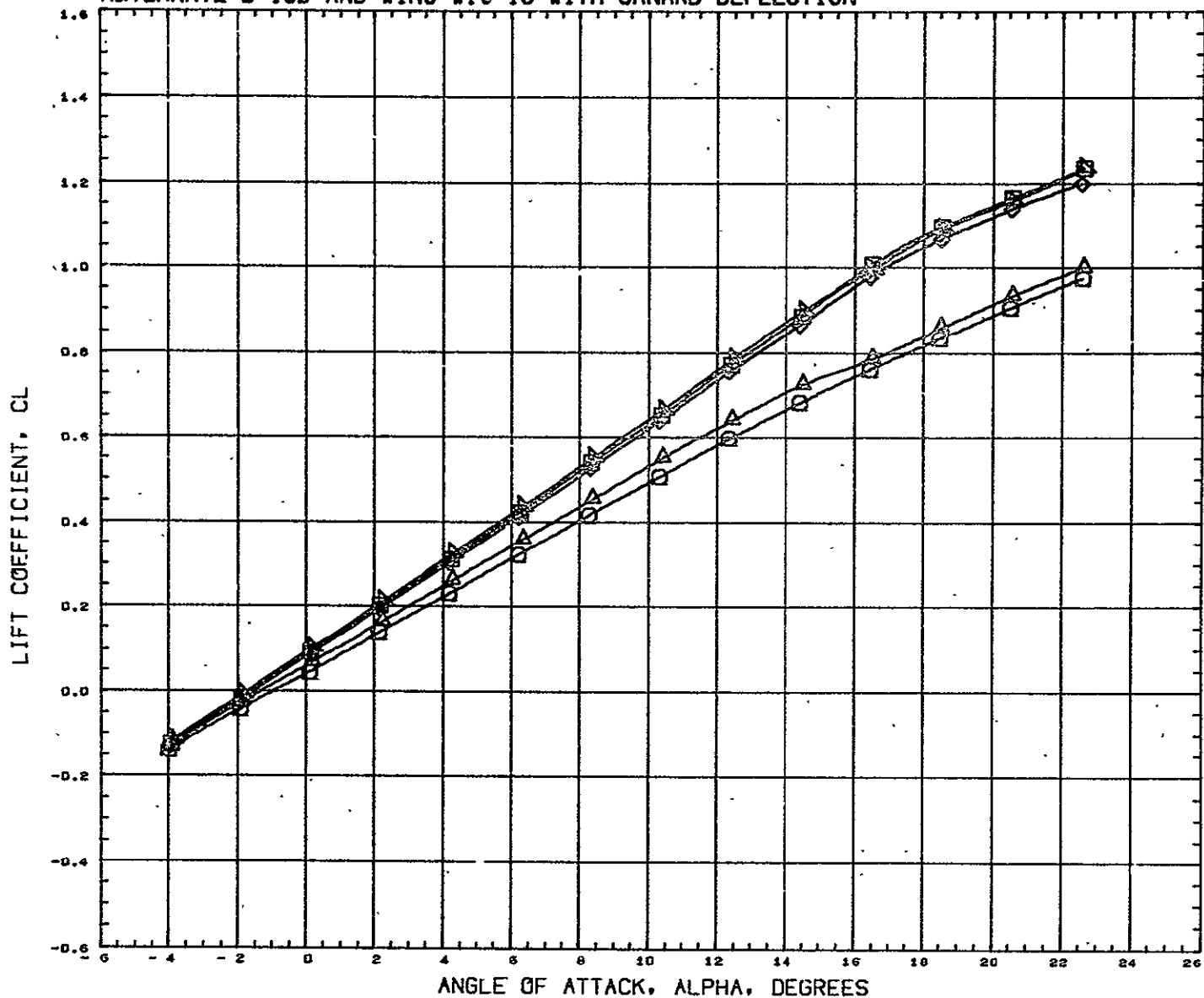
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTB	CFLAPR	Q	REFERENCE INFORMATION		
(ACMA13)	GDLST 587-D B19W10V7P1E32C4 (POS. 1)	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(ACMA14)	GDLST 587-D B19W10V7P1E32C4 (POS. 1)	4.000	0.000	0.000	60.000	REFL	17.0620	IN.
(ACMA15)	GDLST 587-D B19W10V7P1E32C4 (POS. 1)	8.000	0.000	0.000	60.000	REFB	30.4400	IN.
(OCHA93)	GDLST 587-D B19W10-13V7P1E32C4 (POS. 1)	0.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(PCA93)	GDLST 587-D B19W10-13V7P1E32C4 (POS. 1)	4.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(QCHA93)	GDLST 587-D B19W10-13V7P1E32C4 (POS. 1)	8.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
	CANARD 1.000					SCALE	0.0175	

# BASIC B-15B CONFIGURATION PLUS WING W10-13



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVT	CFLAPR	Q	REFERENCE INFORMATION		
(ACMA13)	GDLST 587-0 B19W10V7F1E32C4 (POS. 1)	0.000	0.000	0.000	60.000	REFS	343.6704	SQ. IN
(ACMA14)	GDLST 587-0 B19W10V7F1E32C4 (POS. 1)	4.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ACMA15)	GDLST 587-0 B19W10V7F1E32C4 (POS. 1)	8.000	0.000	0.000	60.000	REFB	30.4400	IN.
(OCMA93)	GDLST 587-0 B19W10-13V7F1E32C4 (POS. 1)	0.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(FCMA93)	GDLST 587-0 B19W10-13V7F1E32C4 (POS. 1)	4.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(QCA93)	GDLST 587-0 B19W10-13V7F1E32C4 (POS. 1)	8.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
CANARD 1.000						SCALE	0.5175	

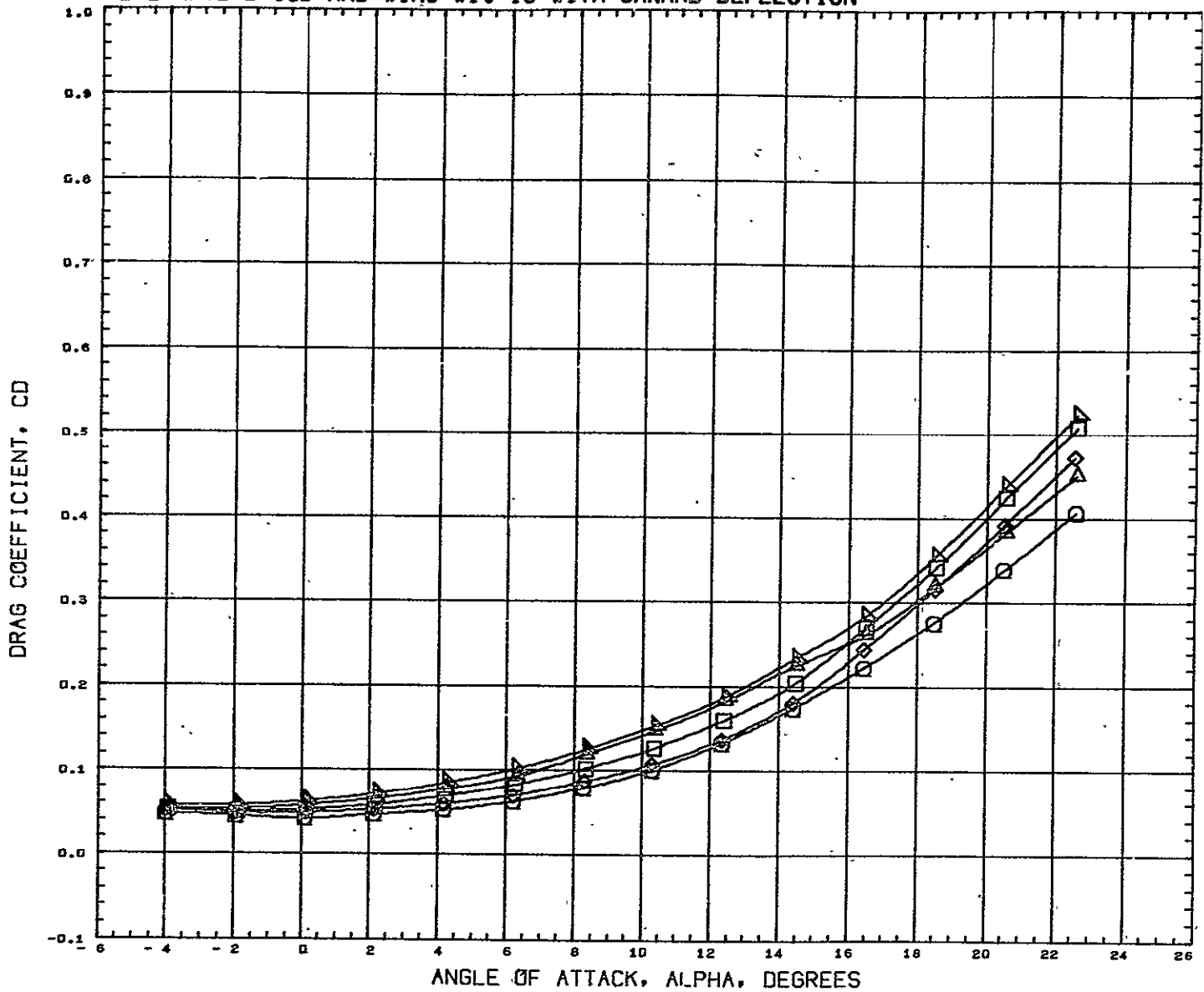
# ALTERNATE B-15B AND WING W10-13 WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAER	Q	REFERENCE INFORMATION		
(DCMA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	50. IN
(DCMA07)	GDLST 587-0 B19W10V7C4	0.000	20.000	0.000	60.000	REFL	15.0620	IN
(DCMA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	REFB	30.4400	IN
(ACMA24)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	XMRP	33.4360	IN
(ACMA25)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	YMRP	0.0000	IN
						ZMRP	3.9380	IN
						SCALE	0.0175	

CANARD 1.000

# ALTERNATE B-15B AND WING W10-13 WITH CANARD DEFLECTION

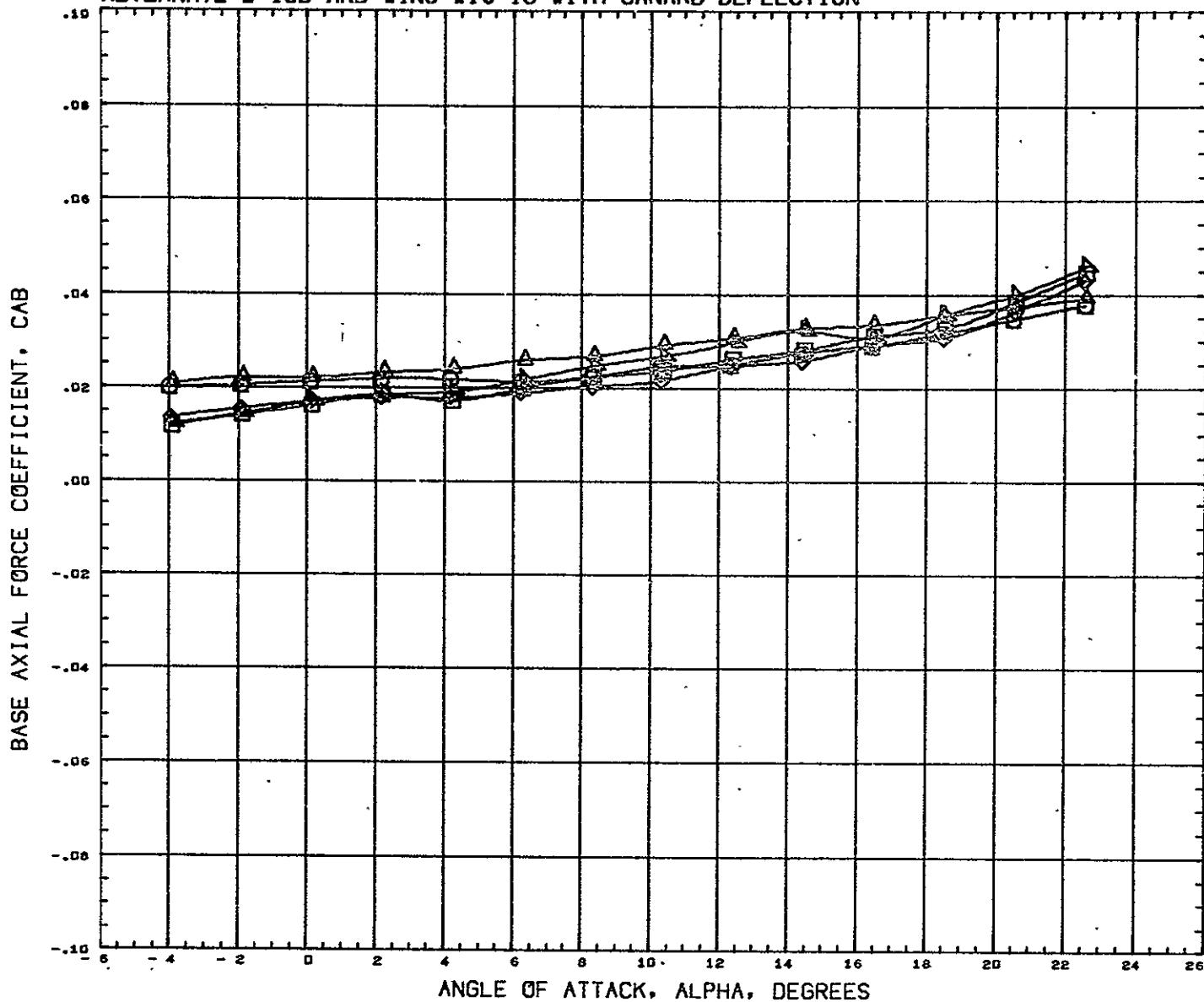


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(DCMA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(DCMA07)	GDLST 587-0 B19W10V7C4	0.000	20.000	0.000	60.000	REFL 15.0620 IN.
(DCMA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	REFB 30.4400 IN.
(ACMA24)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	XHRP 33.4360 IN.
(ACMA25)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

CANARD 1.000



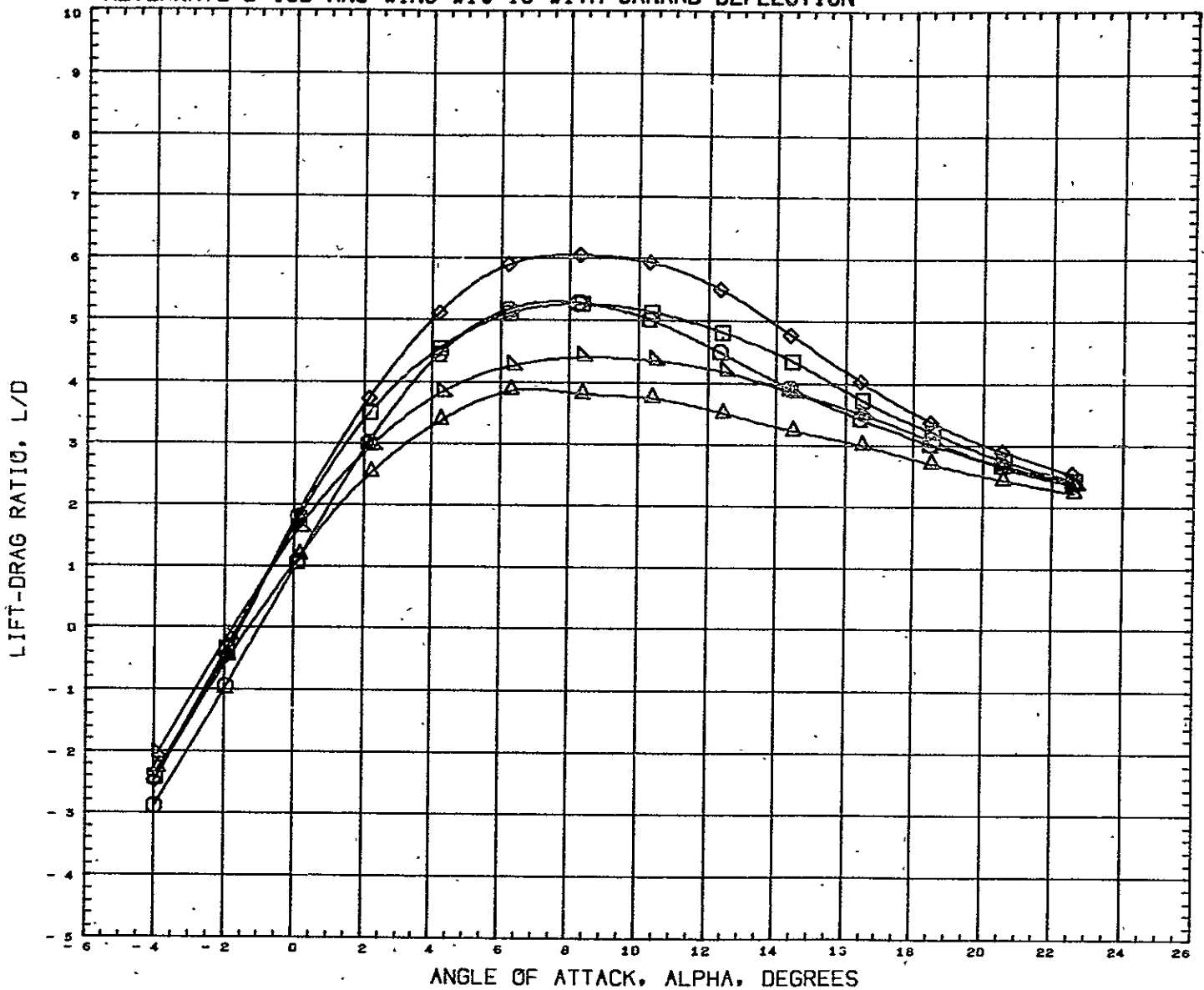
# ALTERNATE B-15B AND WING W10-13 WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCHA10)	GDLST 587-D B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(DCHA07)	GDLST 587-D B19W10V7C4	0.000	20.000	0.000	60.000	REFL	15.0620	IN.
(DCHA21)	GDLST 587-D B19W10-13V7C4	0.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ACMA24)	GDLST 587-D B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	XMRF	33.4360	IN.
(ACMA25)	GDLST 587-D B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	YMRF	0.0000	IN.
						ZMRF	3.9380	IN.
						SCALE	0.0175	

CANARD 1.000

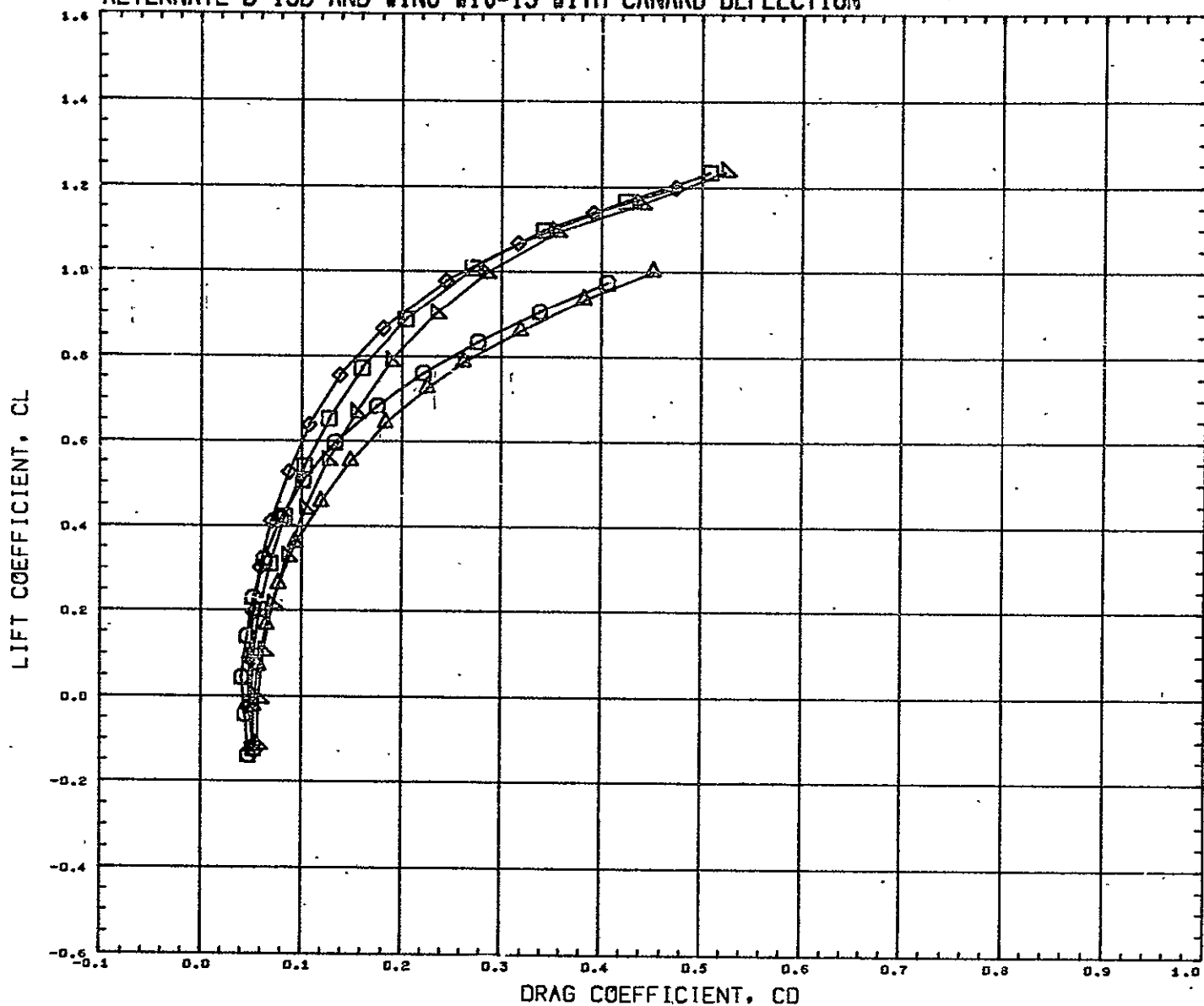
# ALTERNATE B-15B AND WING W10-13 WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCHA10)	GDLST 587-D B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(DCHA07)	GDLST 587-D B19W10V7C4	0.000	20.000	0.000	60.000	REFL	15.0620	IN.
(DCHA21)	GDLST 587-D B19W10-13V7C4	0.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ACHA24)	GDLST 587-D B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	XMRP	33.4360	IN.
(ACHA25)	GDLST 587-D B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

CANARD 1.000

# ALTERNATE B-15B AND WING W10-13 WITH CANARD DEFLECTION

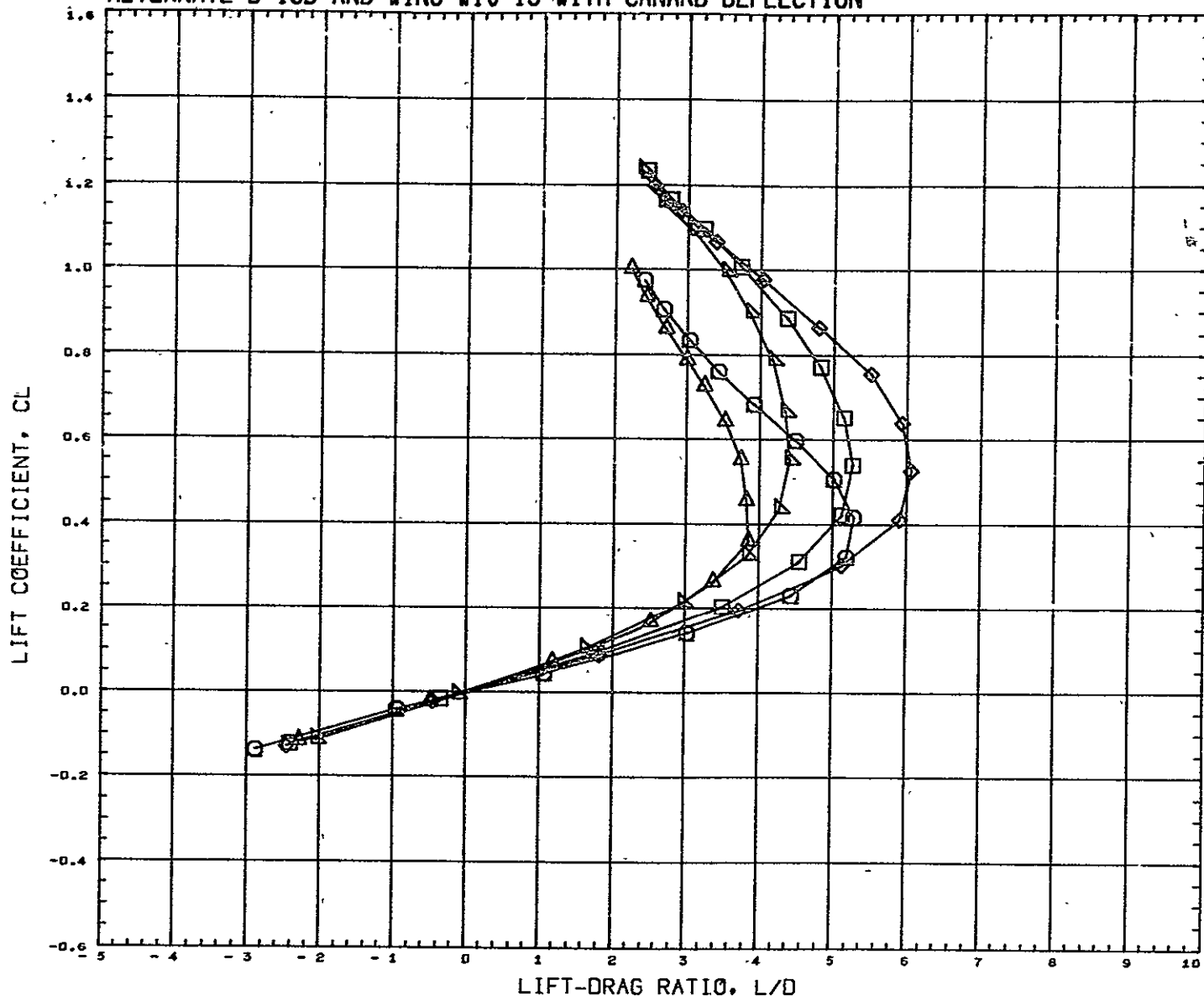


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(DCMA10)	GDLST 587-0 B19W10-13V7C4
(DCMA07)	GDLST 587-0 B19W10V7C4
(DCMA21)	GDLST 587-0 B19W10-13V7C4
(ACHA24)	GDLST 587-0 B19W10-13V7C4 (POS. 1)
(ACHA25)	GDLST 587-0 B19W10-13V7C4 (POS. 1)

CANARD 1.000

BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
0.000	20.000	0.000	60.000	REFL 15.0620 IN.
0.000	0.000	0.000	60.000	REFB 30.4400 IN.
0.000	10.000	0.000	60.000	XMRP 33.4360 IN.
0.000	20.000	0.000	60.000	YMRP 0.0000 IN.
				ZMRP 3.9360 IN.
				SCALE 0.0175

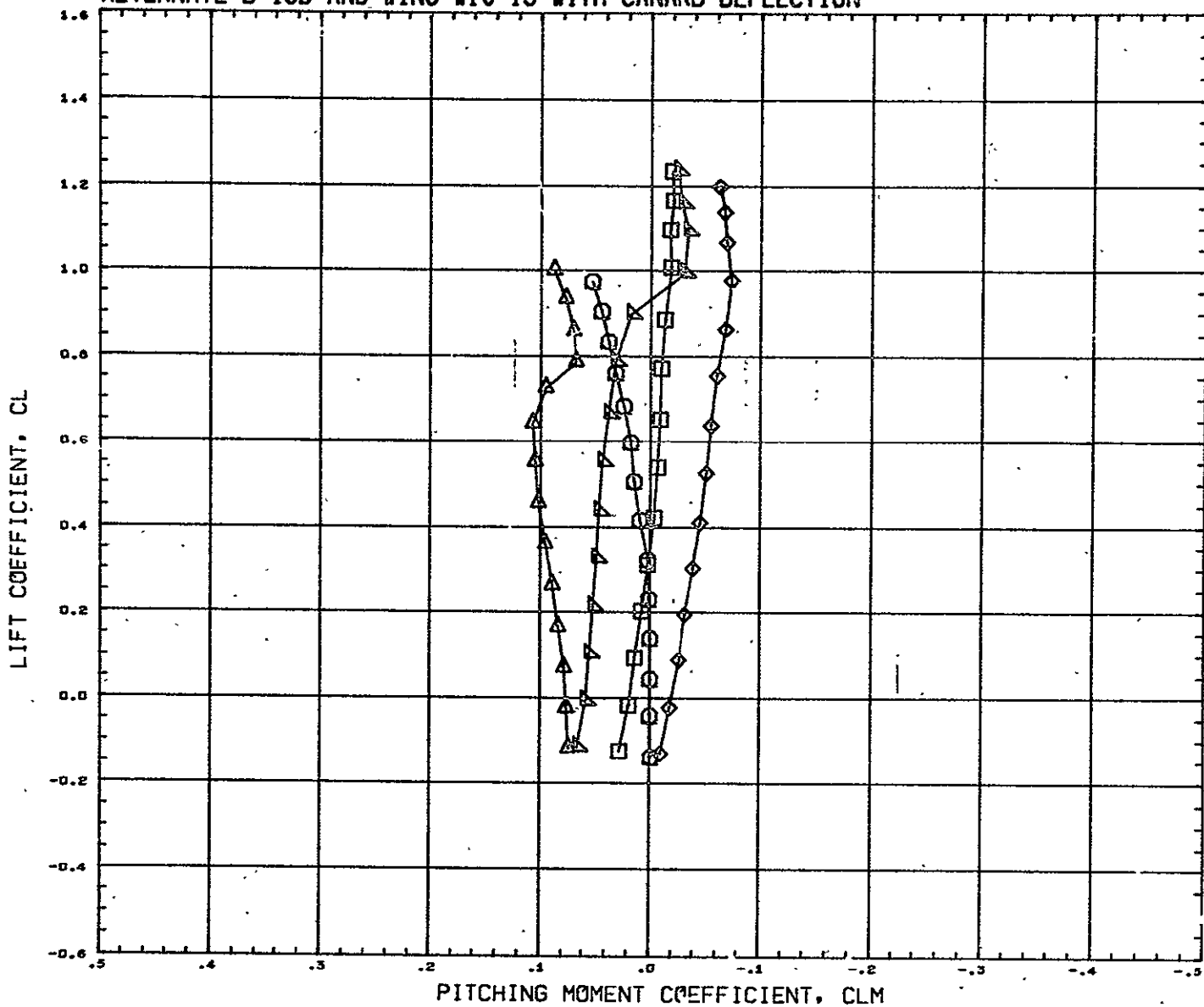
# ALTERNATE B-15B AND WING W10-13 WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCHA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(DCHA07)	GDLST 587-0 B19W10V7C4	0.000	20.000	0.000	60.000	REFL	15.0620	IN.
(DCHA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ACNA24)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	XHRP	33.4360	IN.
(ACNA25)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	YHRP	0.0000	IN.
						ZHRP	3.9380	IN.
						SCALE	0.0175	

CANARD 1.00G

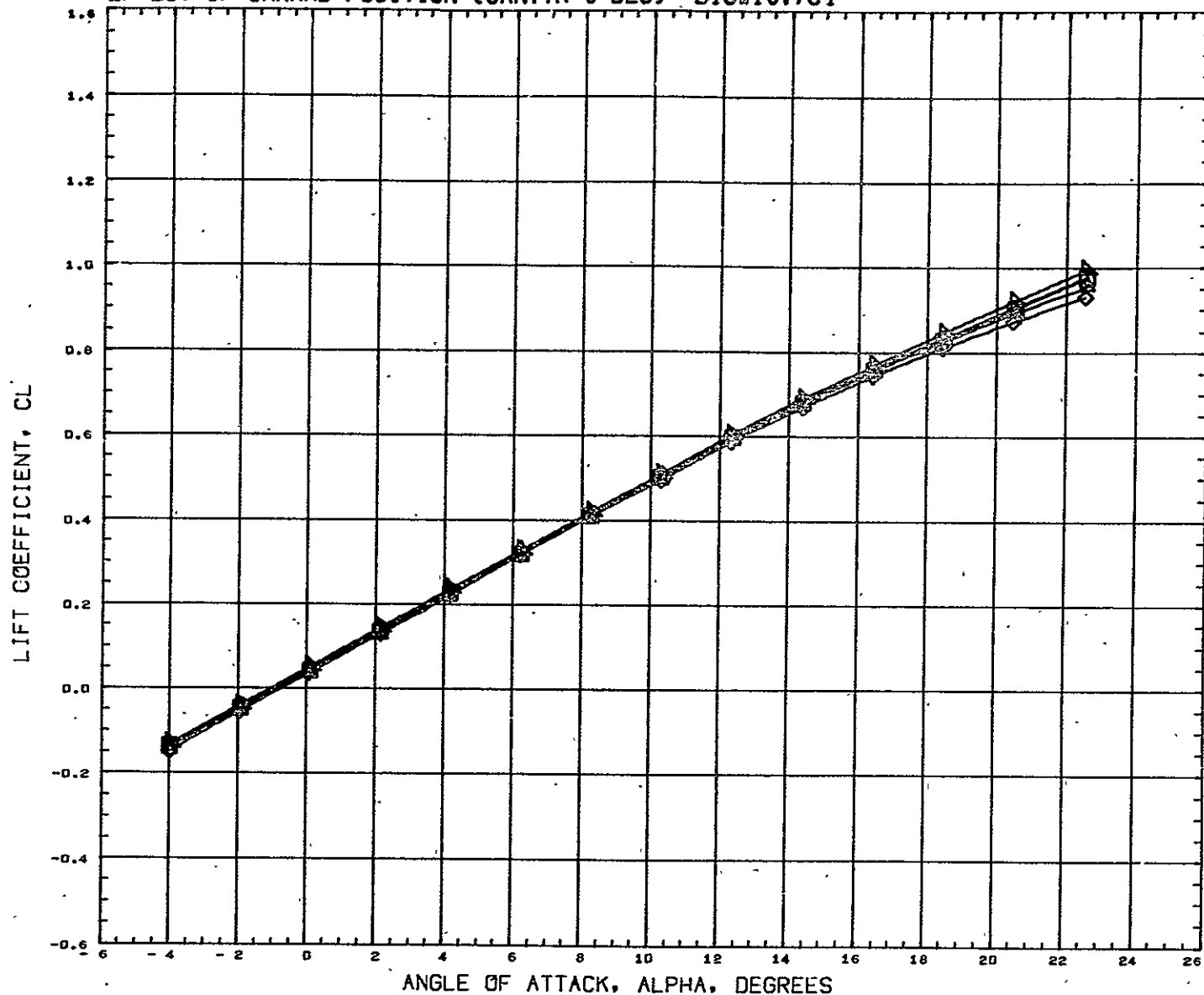
# ALTERNATE B-15B AND WING W10-13 WITH CANARD DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVR	CFLAPR	Q	REFERENCE INFORMATION		
(DCHA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	Sq. ft.
(DCHA07)	GDLST 587-0 B19W10V7C4	0.000	20.000	0.000	60.000	REFL	15.0620	IN.
(DCHA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ACHA24)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	XMRP	33.4360	IN.
(ACHA25)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

CANARD 1.000

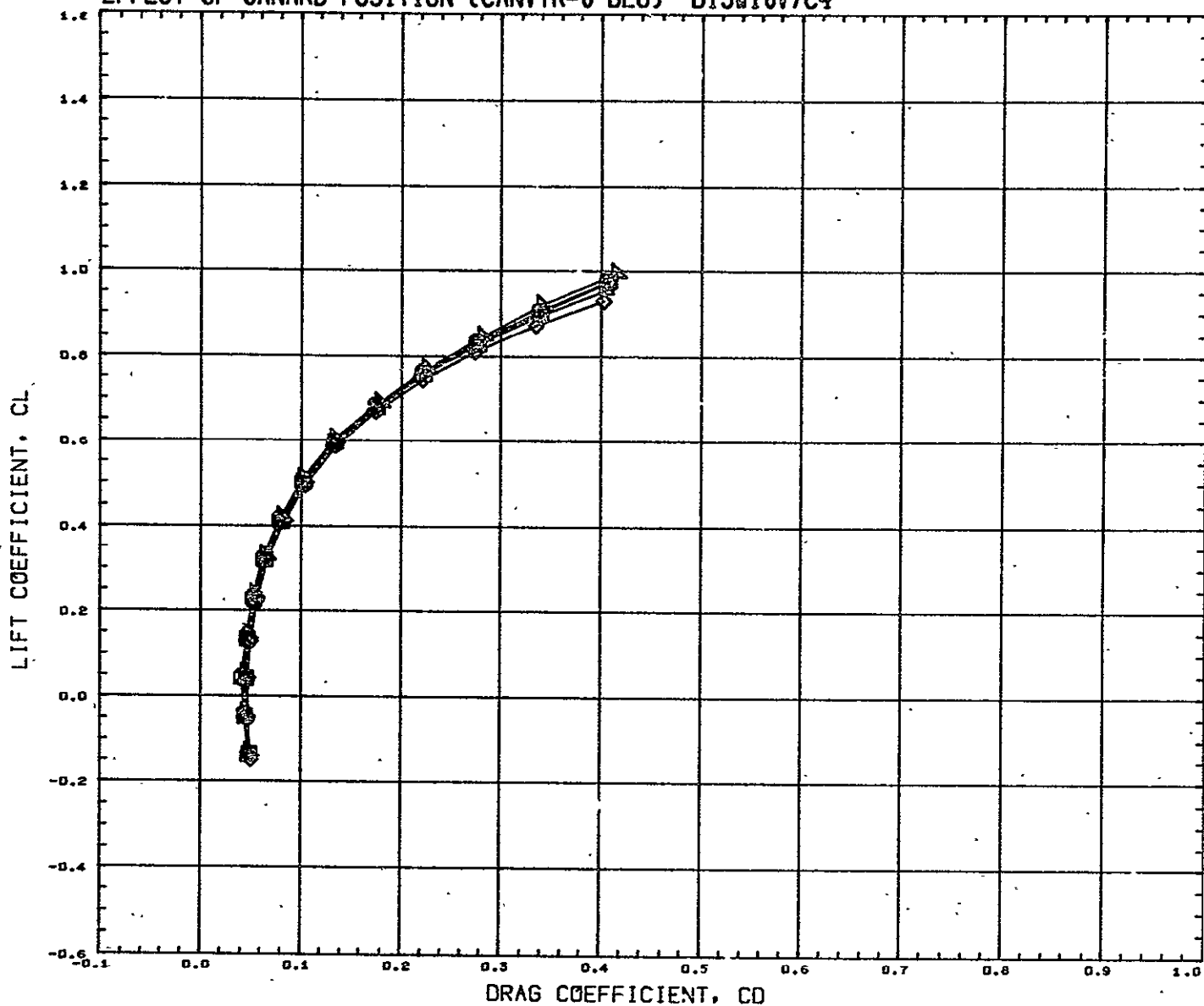
# EFFECT OF CANARD POSITION (CANVTR=0 DEG) B19W10V7C4



SYMBOL	CANARD	PARAMETRIC VALUES			
1.000	BETA	0.000	Q	60.000	
2.000	ELEVTR	0.000	AILRON	0.000	
3.000	CANVTR	0.000	CANRON	0.000	
4.000	CFLAPR	0.000	RUDDER	0.000	
5.000	DELO	0.000	DERO	0.000	
	DATA HIST. CODE	MVV			

REFERENCE INFORMATION		
REFS	343.8704	50. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# EFFECT OF CANARD POSITION (CANVTR=0 DEG) B19W10V7C4

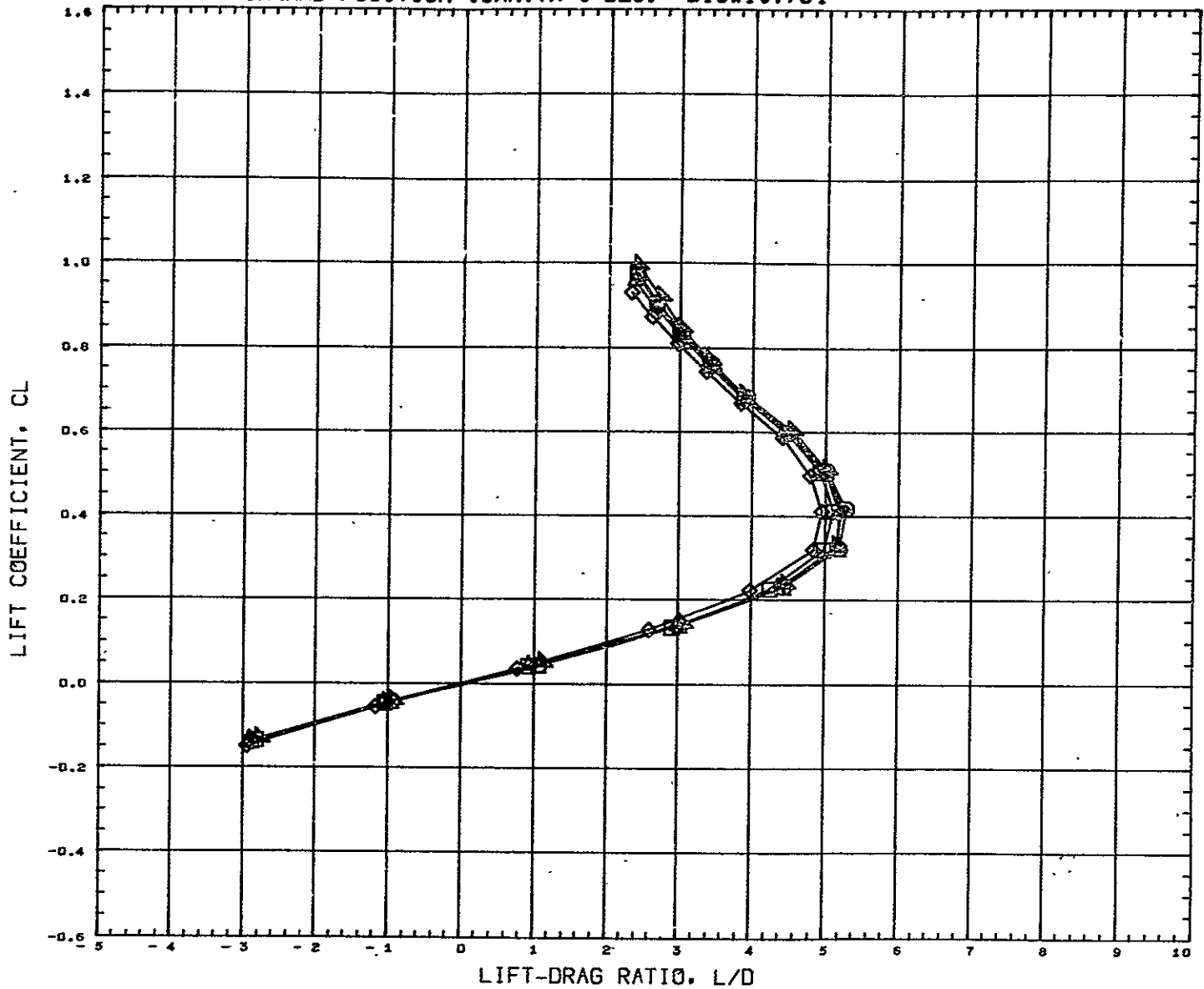


SYMBOL	CANARD		PARAMETRIC VALUES				REFERENCE INFORMATION		
□	1.000	BETA	0.000	Q	60.000		REFS	343.8704	Sq. IN
◇	2.000	ELEVTR	0.000	AILRON	0.000		REFL	15.0620	IN.
△	3.000	CANVTR	0.000	CANRON	0.000		REFB	30.4400	IN.
▽	4.000	CFLAPR	0.000	RUDDER	0.000		XNRF	33.4360	IN.
◇	5.000	DELO	0.000	DERO	0.000		YNRF	0.0000	IN.
◇	6.000						ZNRF	3.9380	IN.
		DATA HIST. CODE	MVV				SCALE	0.0175	

GDLST 587-0 B19W10-1V7C4

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# EFFECT OF CANARD POSITION (CANVTR=0 DEG) B19W10V7C4

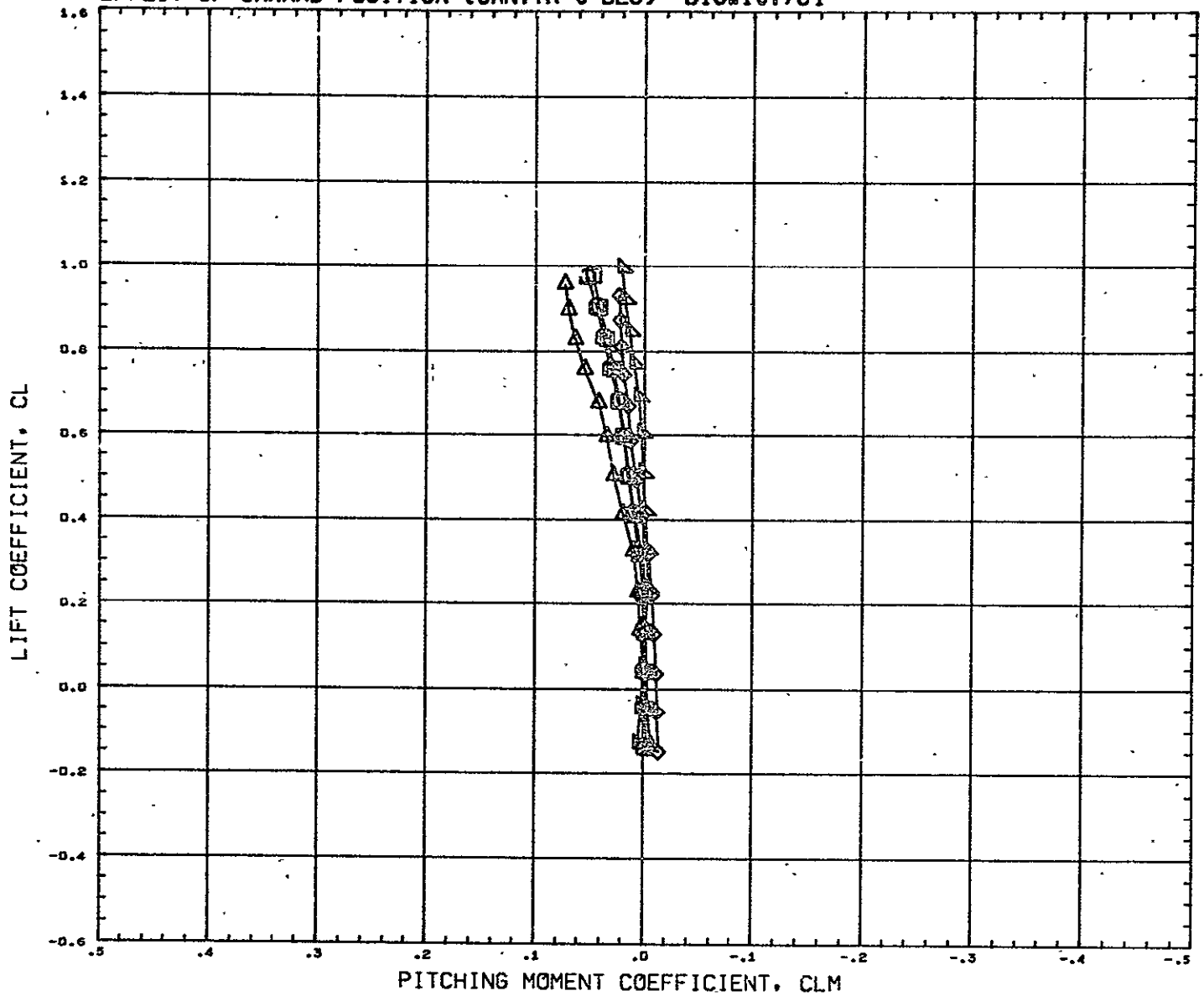


SYMBOL	CANARD	PARAMETRIC VALUES			
○	1.000	BETA	0.000	Q	60.000
△	2.000	ELEVTR	0.000	AILRON	0.000
◇	3.000	CANVTR	0.000	CANRON	0.000
□	4.000	CFLAPR	0.000	RUDDER	0.000
▽	5.000	DELO	0.000	DERO	0.000
		DATA HIST. CODE	MVV		

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

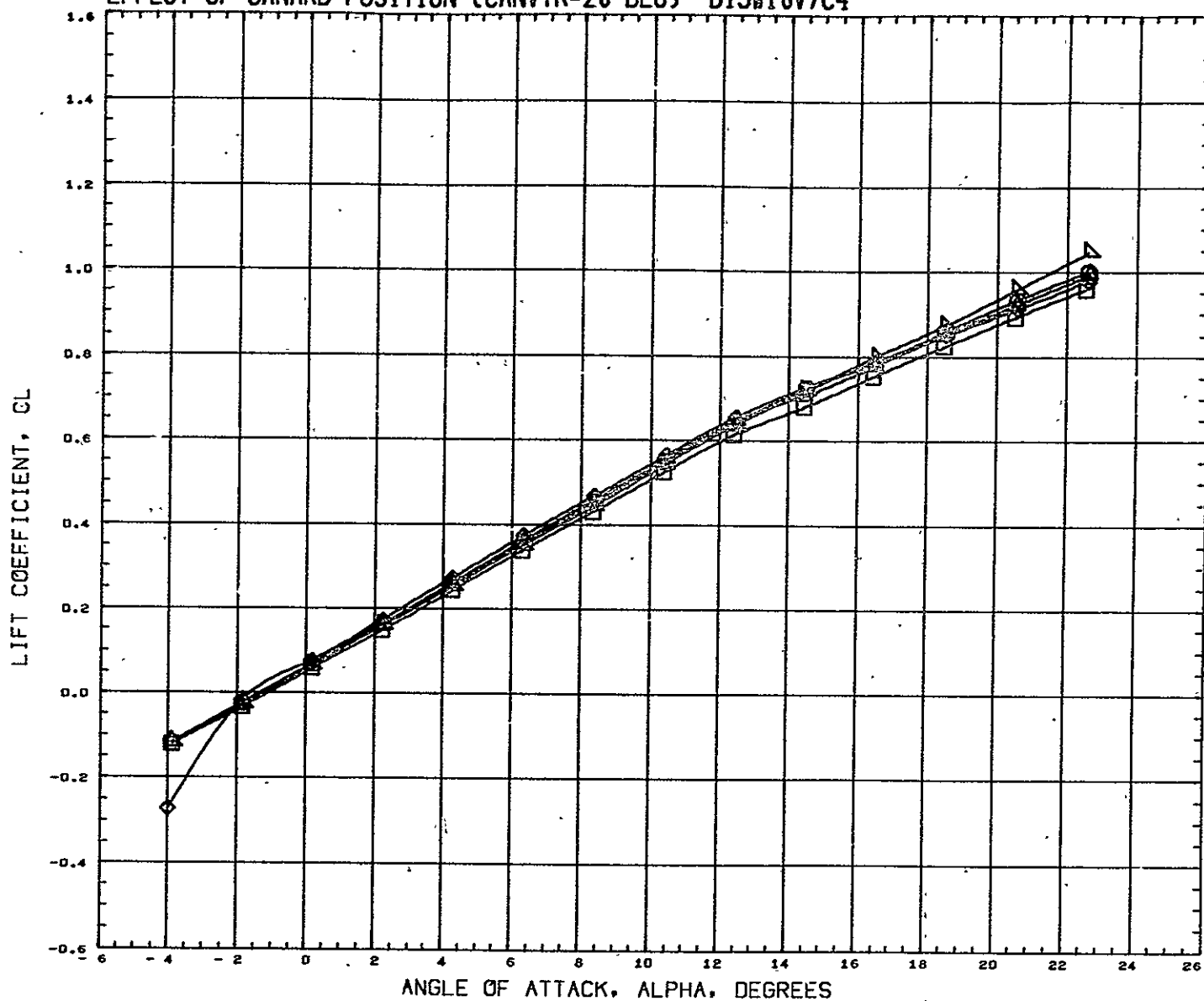


# EFFECT OF CANARD POSITION (CANVTR=0 DEG) B19W10V7C4



SYMBOL	CANARD	PARAMETRIC VALUES				REFERENCE INFORMATION		
△	1.000	BETA	0.000	Q	60.000	REFS	343.8704	SQ. IN
◇	2.000	ELEVTR	0.000	AILRON	0.000	REFL	15.0620	IN.
□	3.000	CANVTR	0.000	CANRON	0.000	REFB	30.4400	IN.
◇	4.000	CFLAPR	0.000	RUDDER	0.000	XMRP	33.4360	IN.
△	5.000	DELO	0.000	DERO	0.000	YMRP	0.0000	IN.
◇	6.000					ZMRP	3.9380	IN.
		DATA HIST. CODE	MVY			SCALE	0.0175	

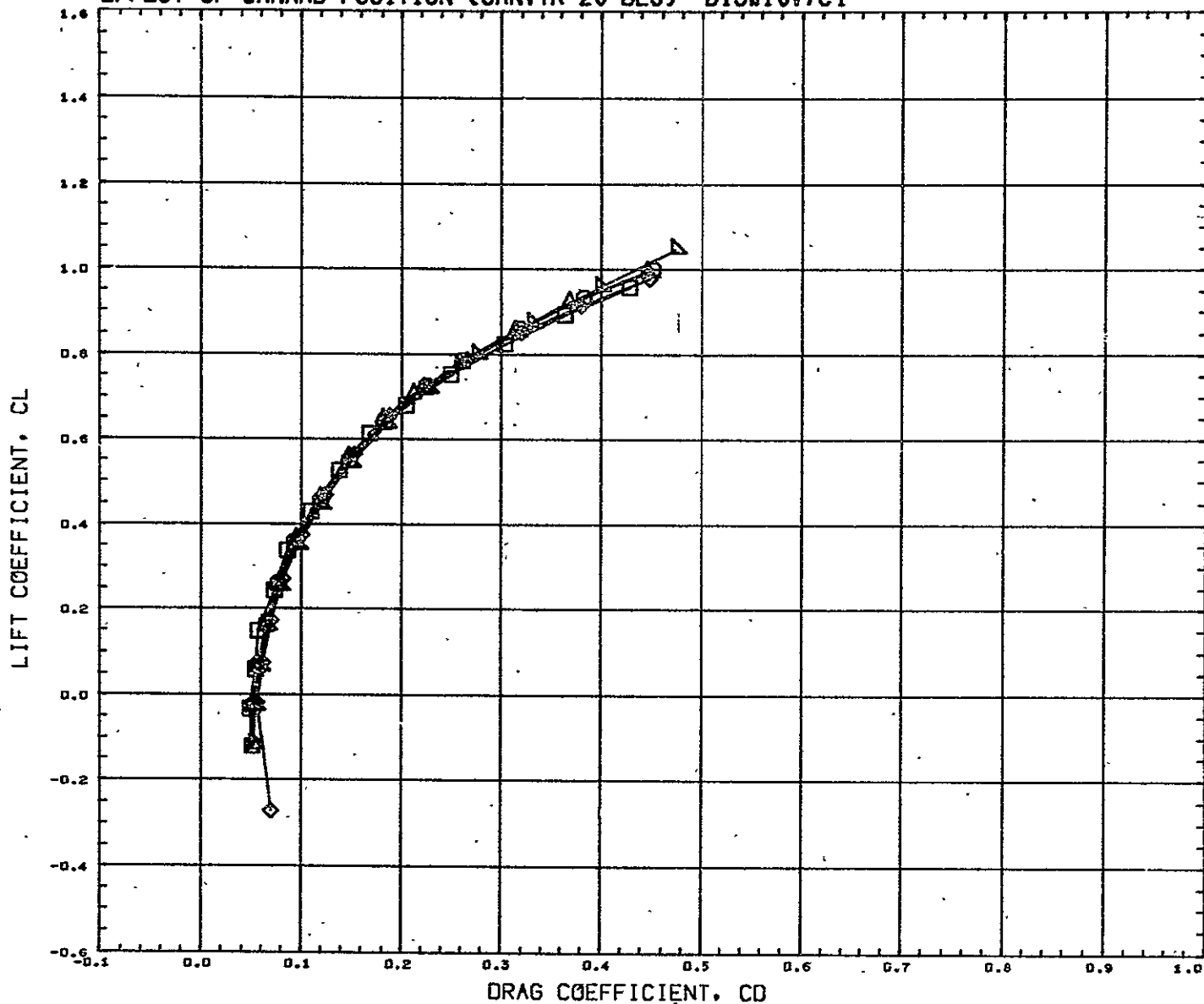
# EFFECT OF CANARD POSITION (CANVTR=20 DEG) B19W10V7C4



SYMBOL	CANARD	PARAMETRIC VALUES			
□	1.000	BETA	0.000	Q	60.000
◇	2.000	ELEVTR	0.000	AILRON	0.000
◇	3.000	CANVTR	20.000	CANRON	0.000
◇	4.000	CFLAPR	0.000	RUDDER	0.000
◇	8.000	DELO	0.000	DERO	0.000
		DATA HIST. CODE	MVV		

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFD	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# EFFECT OF CANARD POSITION (CANVTR=20 DEG) B19W10V7C4



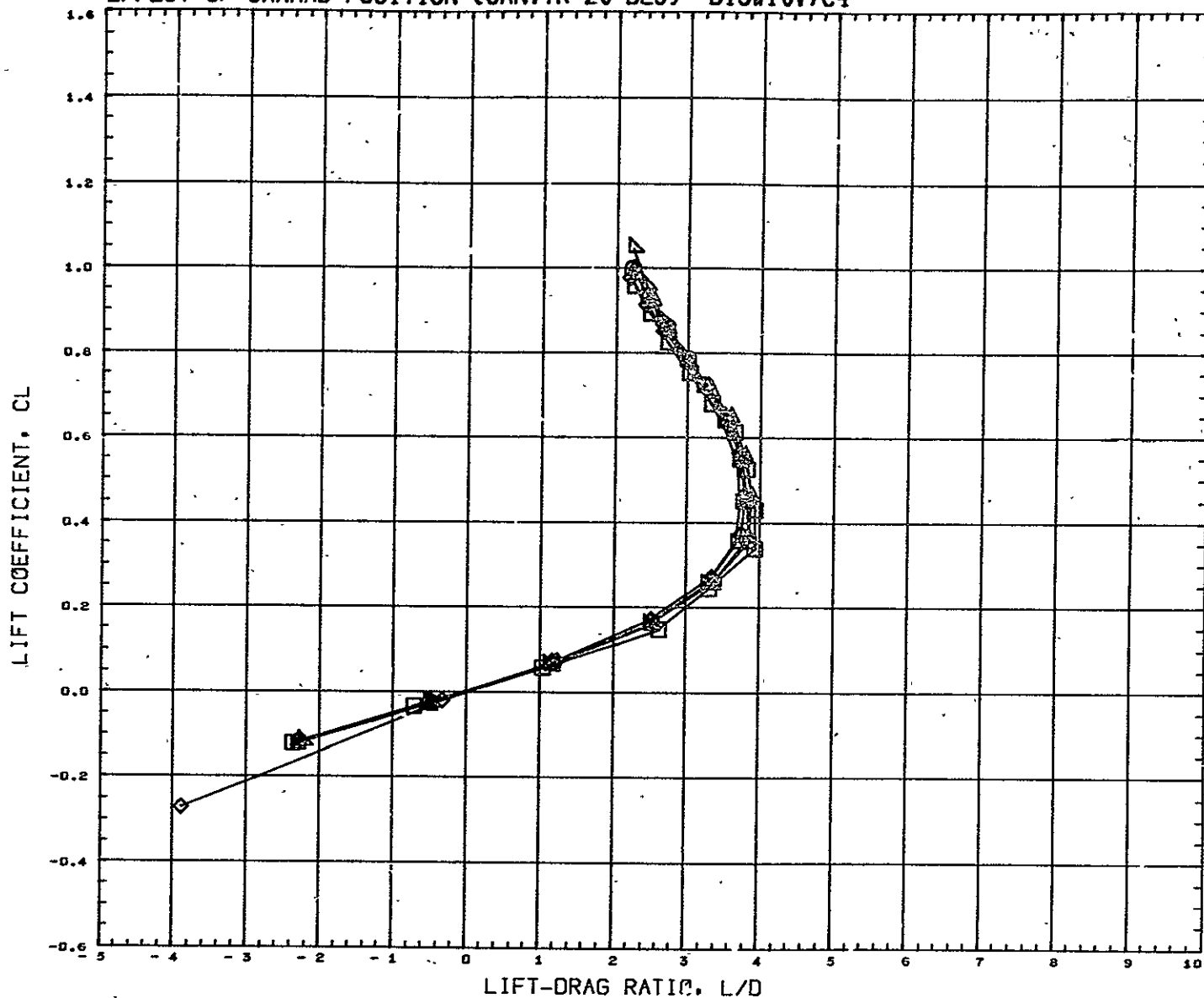
SYMBOL	CANARD	PARAMETRIC VALUES			
1.000	BETA	0.000	Q	60.000	
2.000	ELEVTR	0.000	AILRON	0.000	
3.000	CANVTR	20.000	CANRON	0.000	
4.000	CFLAPR	0.000	RUDDER	0.000	
5.000	DELO	0.000	DERO	0.000	
6.000					
7.000					
8.000					
	DATA HIST. CODE	NVV			

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-0 B19W10V7C4

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# EFFECT OF CANARD POSITION (CANVTR=20 DEG) B19W10V7C4



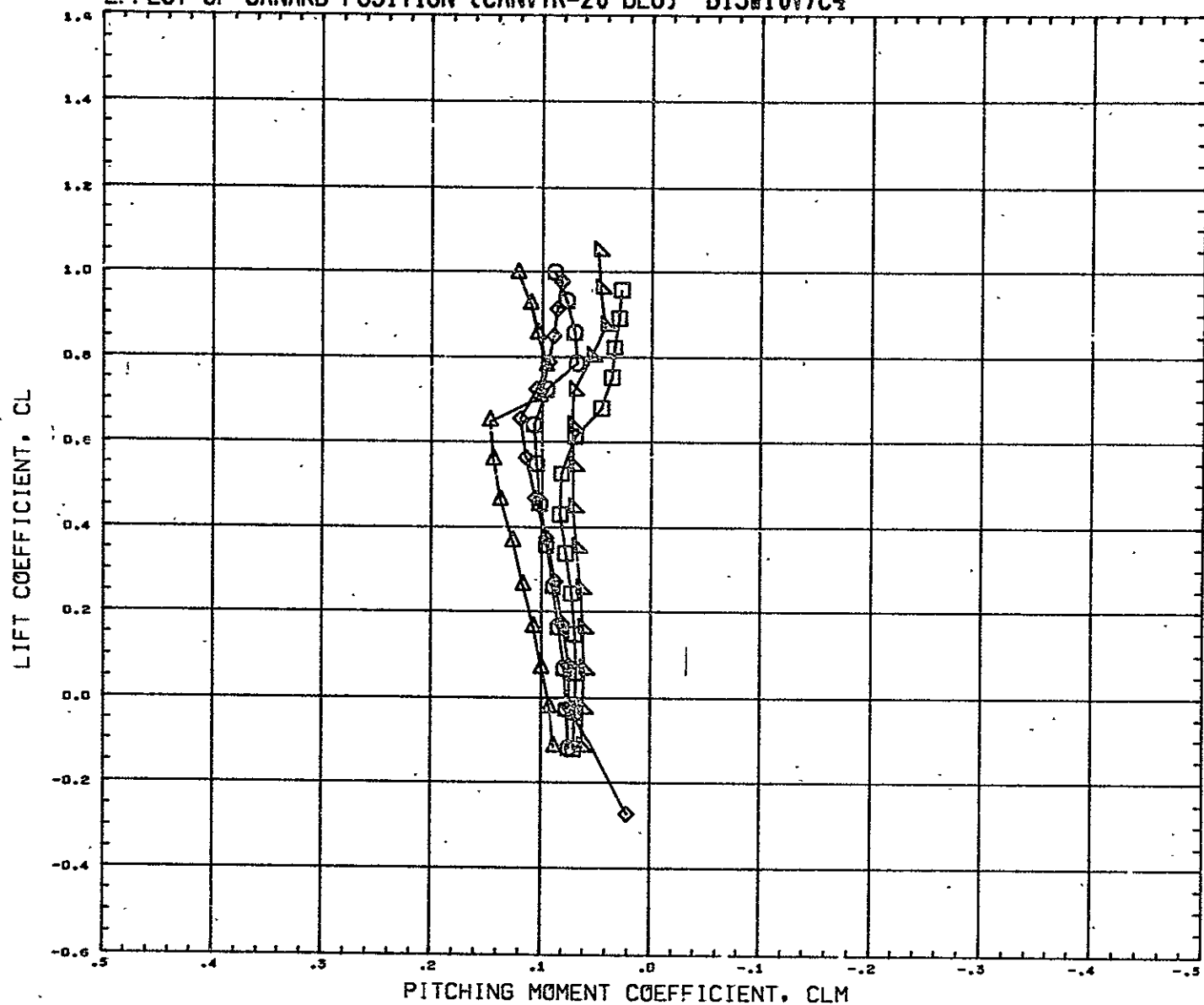
SYMBOL	CANARD	PARAMETRIC VALUES			
◇	1.000	BETA	0.000	Q	60.000
◇	2.000	ELEVTR	0.000	AILRON	0.000
◇	3.000	CANVTR	20.000	CANRON	0.000
◇	4.000	CFLAPR	0.000	RUDDER	0.000
◇	5.000	DELO	0.000	DCRO	0.000
		DATA HIST. CODE	MVV		

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-0 B19W10V7C4

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# EFFECT OF CANARD POSITION (CANVTR=20 DEG) B19W10V7C4

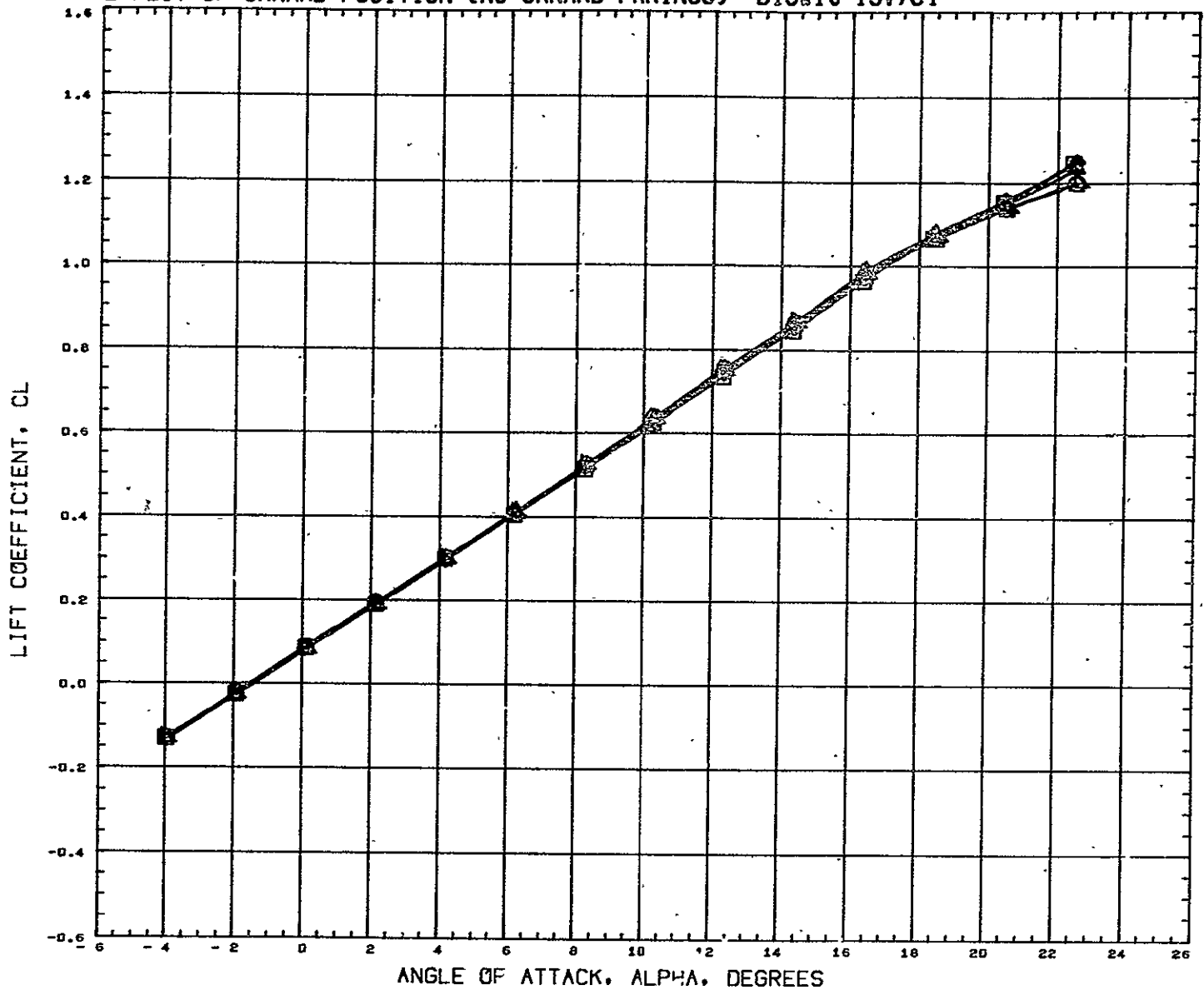


SYMBOL	CANARD	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	1.000	BETA	0.000	Q	60.000	REFS	343.8704	SQ. IN.
△	2.000	ELEVTR	0.000	AILRON	0.000	REFL	15.0620	IN.
◇	3.000	CANVTR	20.000	CANRON	0.000	REFB	30.4400	IN.
□	4.000	CFLAPR	0.000	RUDDER	0.000	XMRP	33.4360	IN.
▽	5.000	DELO	0.000	DERO	0.000	YMRP	0.0000	IN.
		DATA HIST. CODE	MVV			ZMRP	3.9380	IN.
						SCALE	0.0175	

GDLST 587-0 B19W10V7C4

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# EFFECT OF CANARD POSITION (NO CANARD FARINGS) B19W10-13V7C4

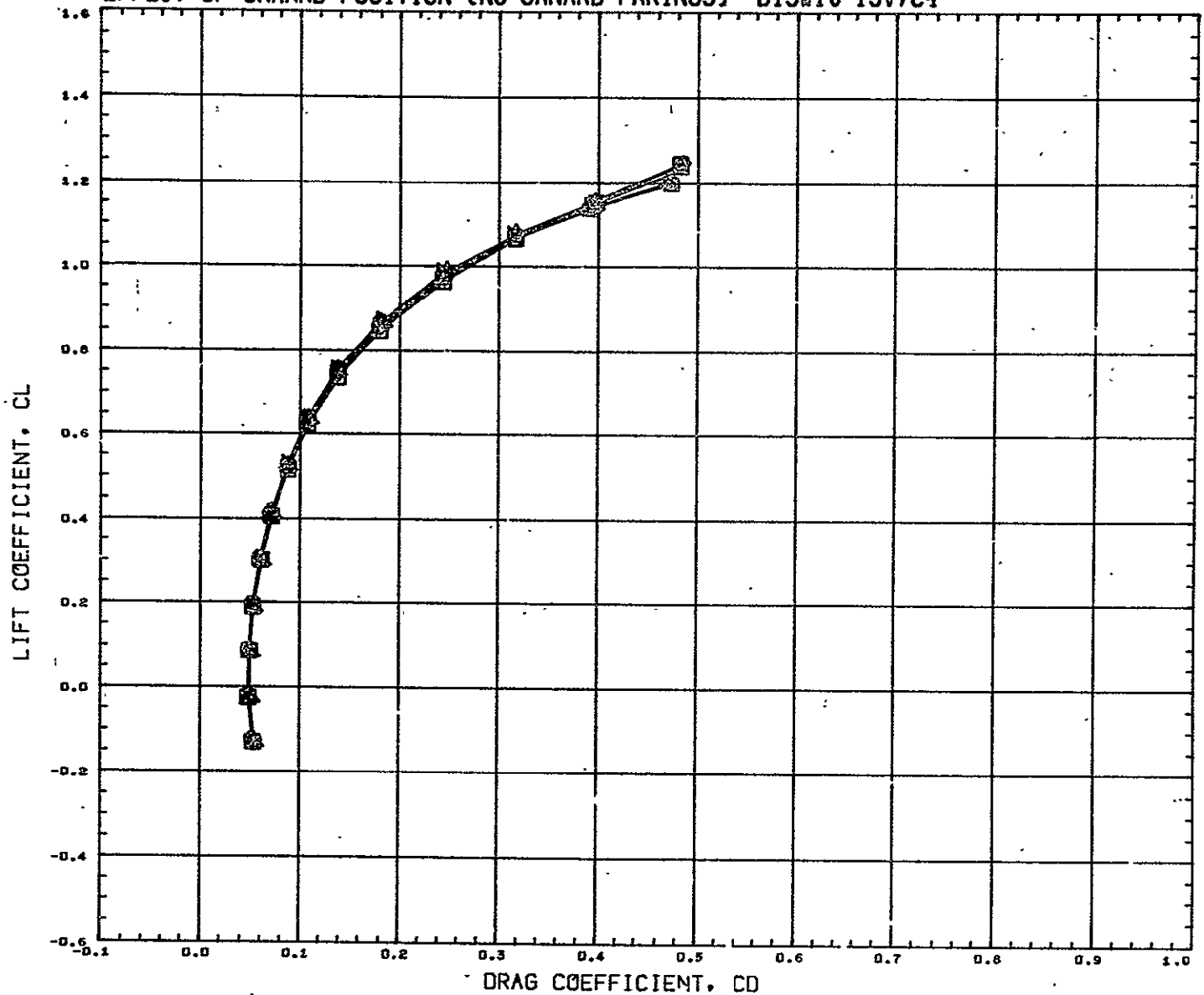


SYMBOL	CANARD	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	1.000	BETA	0.000	Q	60.000	REFS	343.8704	SQ. IN
◇	8.000	ELEVTR	0.000	AILRON	0.000	REFL	15.0620	IN.
△	10.000	CANVTR	0.000	CANRON	0.000	REFB	30.4400	IN.
□	11.000	CFLAPR	0.000	RUDDER	0.000	XMRP	33.4360	IN.
▽	12.000	DELO	0.000	DELR	0.000	YMRP	0.0000	IN.
		DATA HIST. CODE	MVV			ZMRP	3.9380	IN.
						SCALE	0.0175	

GDLST 587-0 B19W10-13V7C4

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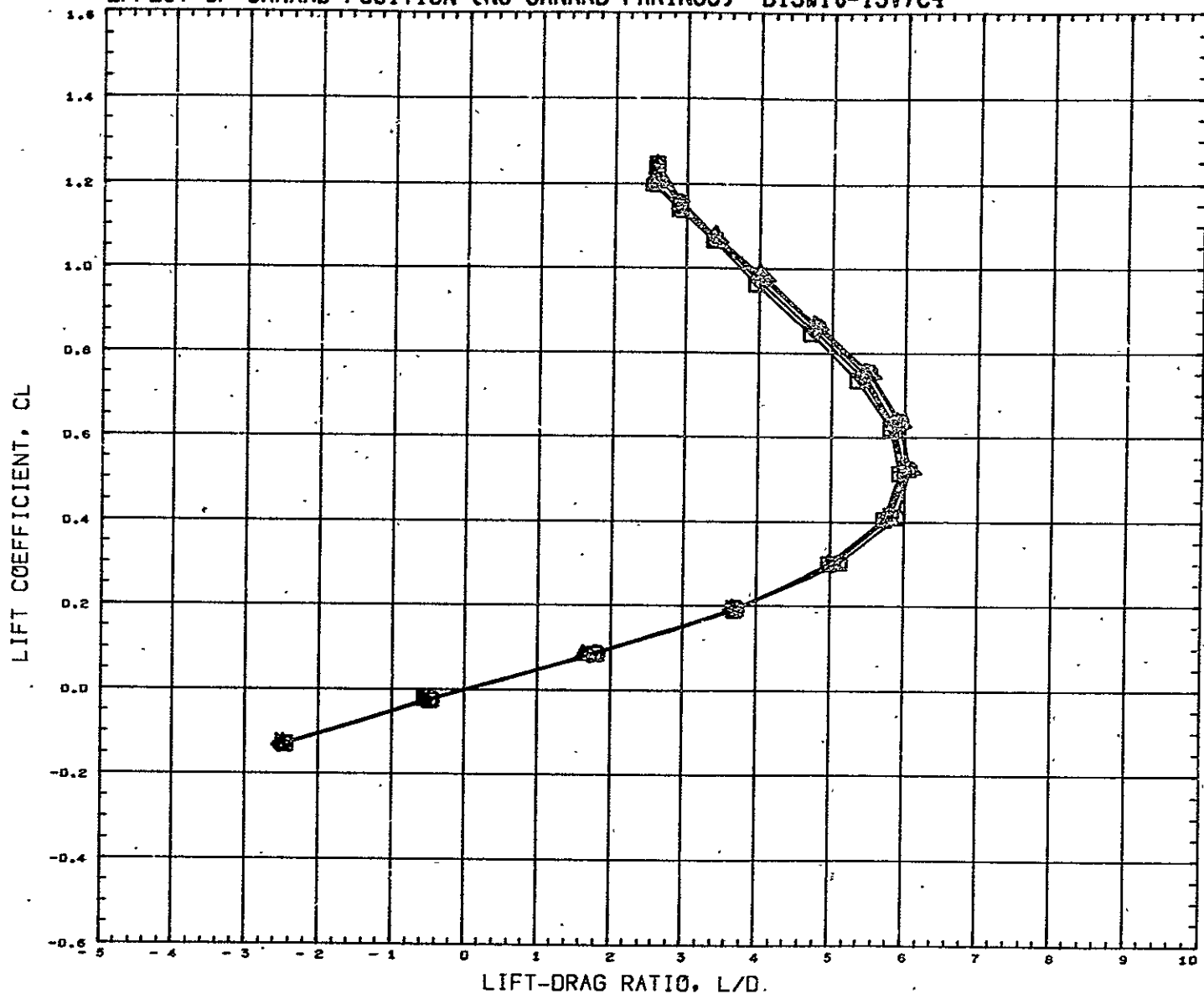
# EFFECT OF CANARD POSITION (NO CANARD FARINGS) B19W10-13V7C4



SYMBOL	CANARD	PARAMETRIC VALUES			
1.000	BETA	0.000	Q	60.000	
8.000	ELEVTR	0.000	AILRON	0.000	
10.000	CANVTR	0.000	CANRON	0.000	
11.000	CFLAPR	0.000	RUDDER	0.000	
12.000	DELO	0.000	DELR	0.000	
	DATA HIST. CODE	MVV			

REFERENCE INFORMATION		
REFS	343.8704	Sq. IN.
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# EFFECT OF CANARD POSITION (NO CANARD FARINGS) B19W10-13V7C4



SYMBOL	CANARD	PARAMETRIC VALUES			
○	1.000	BETA	0.000	Q	60.000
△	8.000	ELEVTR	0.000	AILRON	0.000
◇	10.000	CANVTR	0.000	CANRON	0.000
□	11.000	CFLAPR	0.000	RUDDER	0.000
▽	12.000	DELO	0.000	DELR	0.000
		DATA HIST. CODE	MVV		

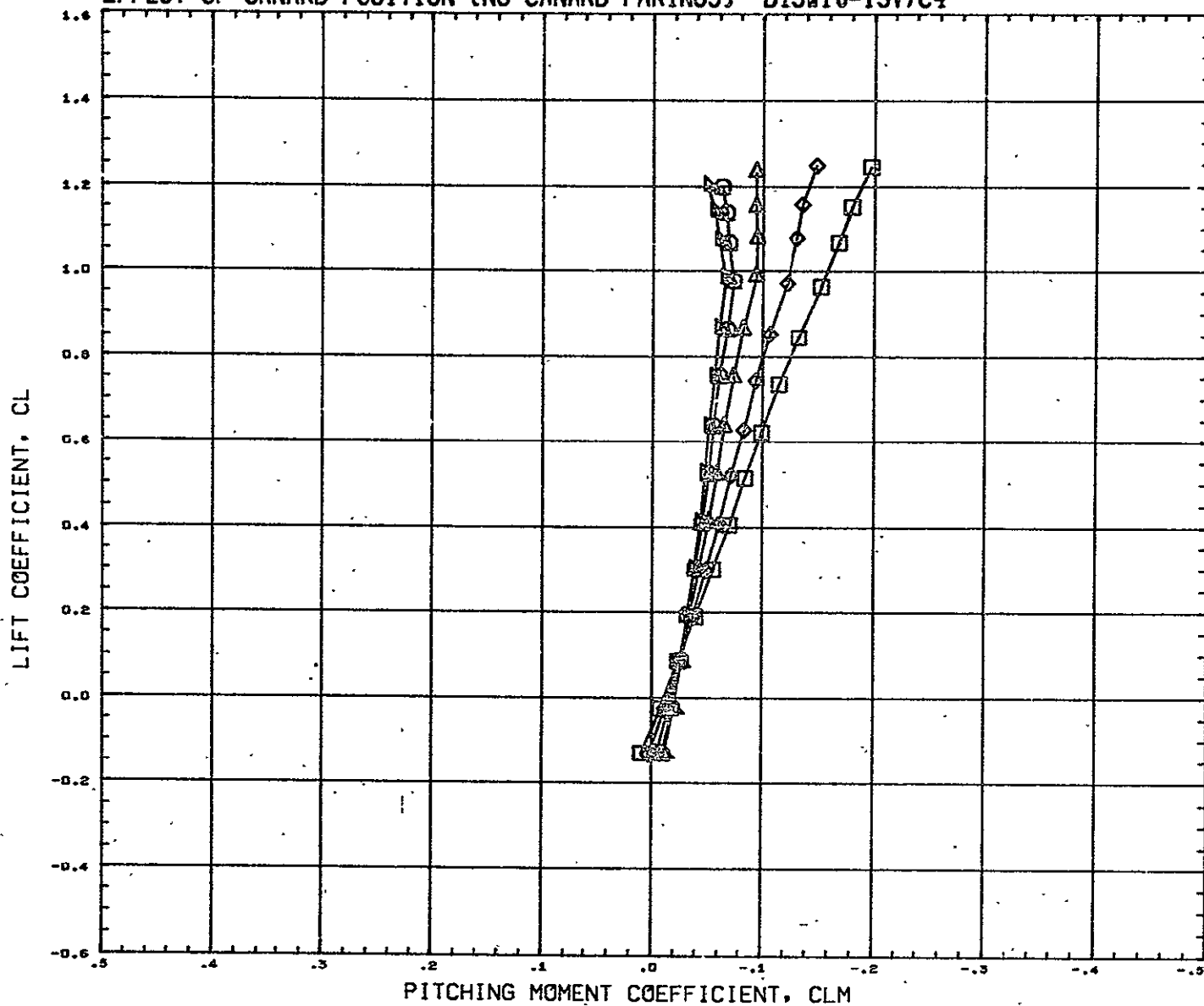
REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XNRP	33.4360	IN.
YNRP	0.0000	IN.
ZNRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-0 B19W10-13V7C4

(ACMA21) 08 AUG 71 PAGE 28



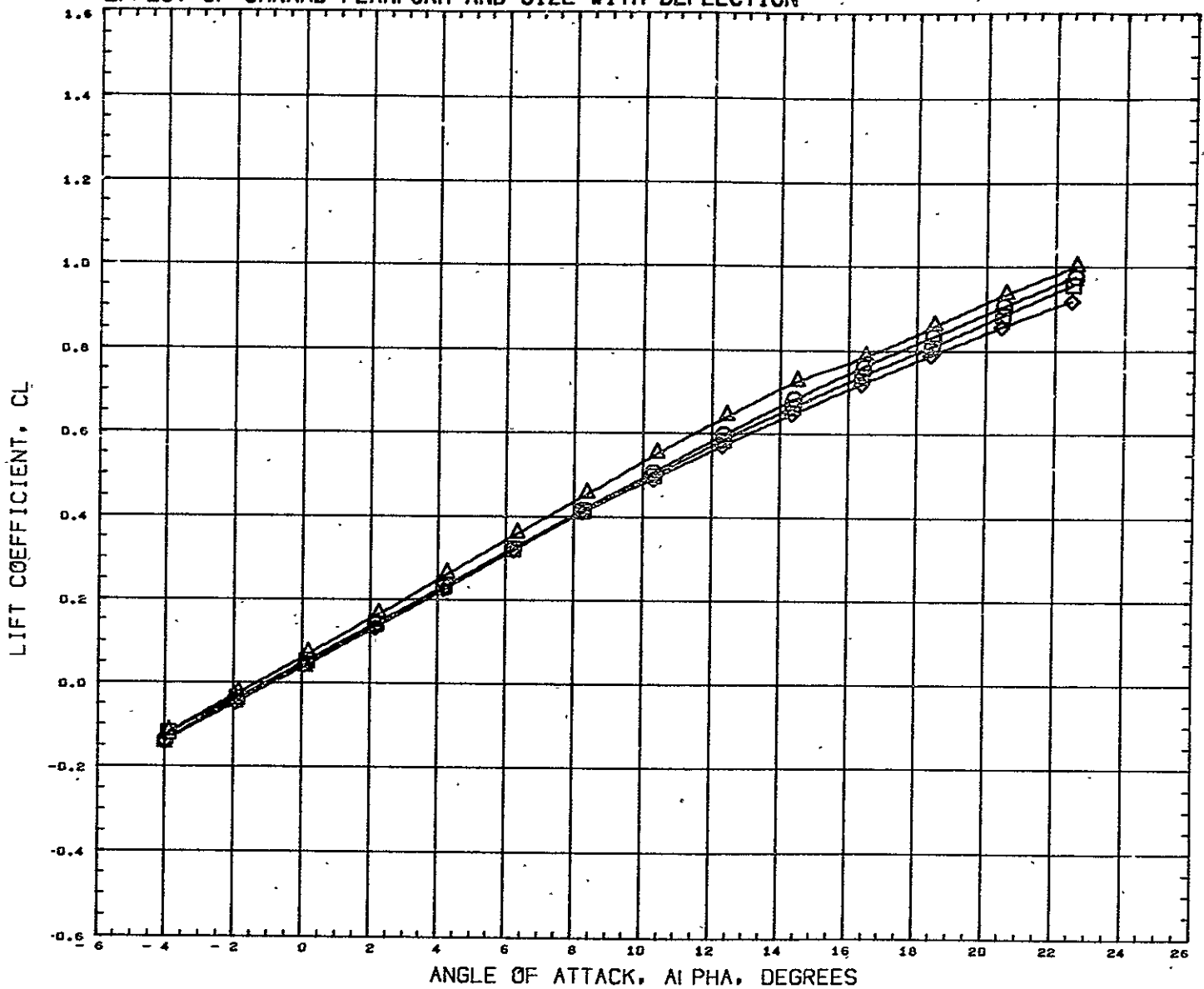
# EFFECT OF CANARD POSITION (NO CANARD FARINGS) B19W10-13V7C4



SYMBOL	CANARD	PARAMETRIC VALUES			
1.000	BETA	0.000	0	60.000	
8.000	ELEVTR	0.000	AILRON	0.000	
10.000	CANVTR	0.000	CANRON	0.000	
11.000	CFLAPR	0.000	RUDDER	0.000	
12.000	DELO	0.000	DELR	0.000	
	DATA HIST. CODE	MYV			

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# EFFECT OF CANARD PLANFORM AND SIZE WITH DEFLECTION



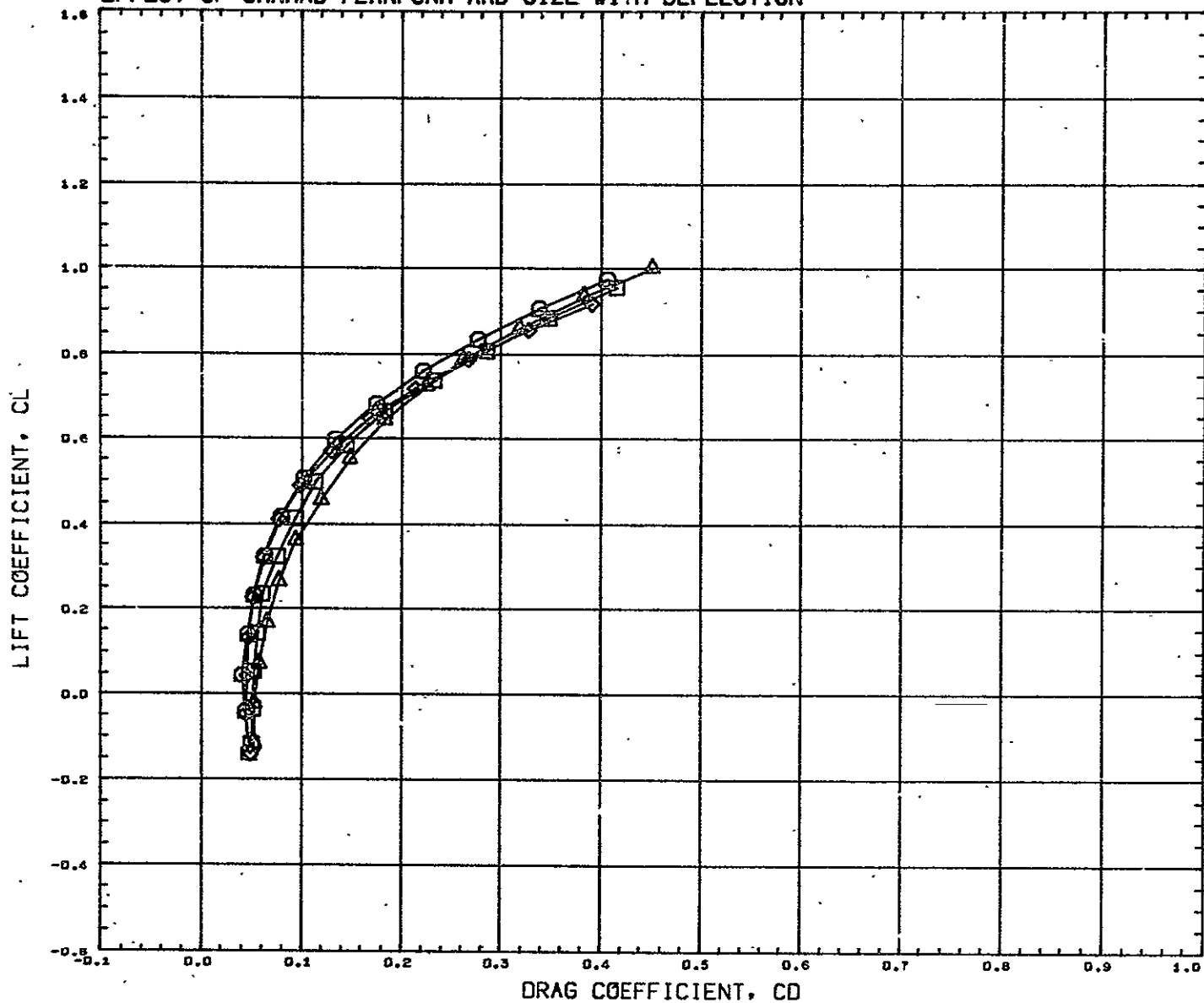
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10)	○	GDLST 587-0 B19W10-1V7C4
(BCMA07)	△	GDLST 587-0 B19W10V7C4
(ICMA45)	◇	GDLST 587-0 B19W10V7C6 (POS. 1)
(ICMA44)	□	GDLST 587-0 B19W10V7C6 (POS. 1)

CANARD	CANVT	CFLAPR	Q
1.000	0.000	0.000	60.000
1.000	20.000	0.000	60.000
1.000	0.000	0.000	60.000
1.000	20.000	0.000	60.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFS	30.4400	IN.
XMRP	33.4360	IN.
YNRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

BETA 0.000

# EFFECT OF CANARD PLANFORM AND SIZE WITH DEFLECTION



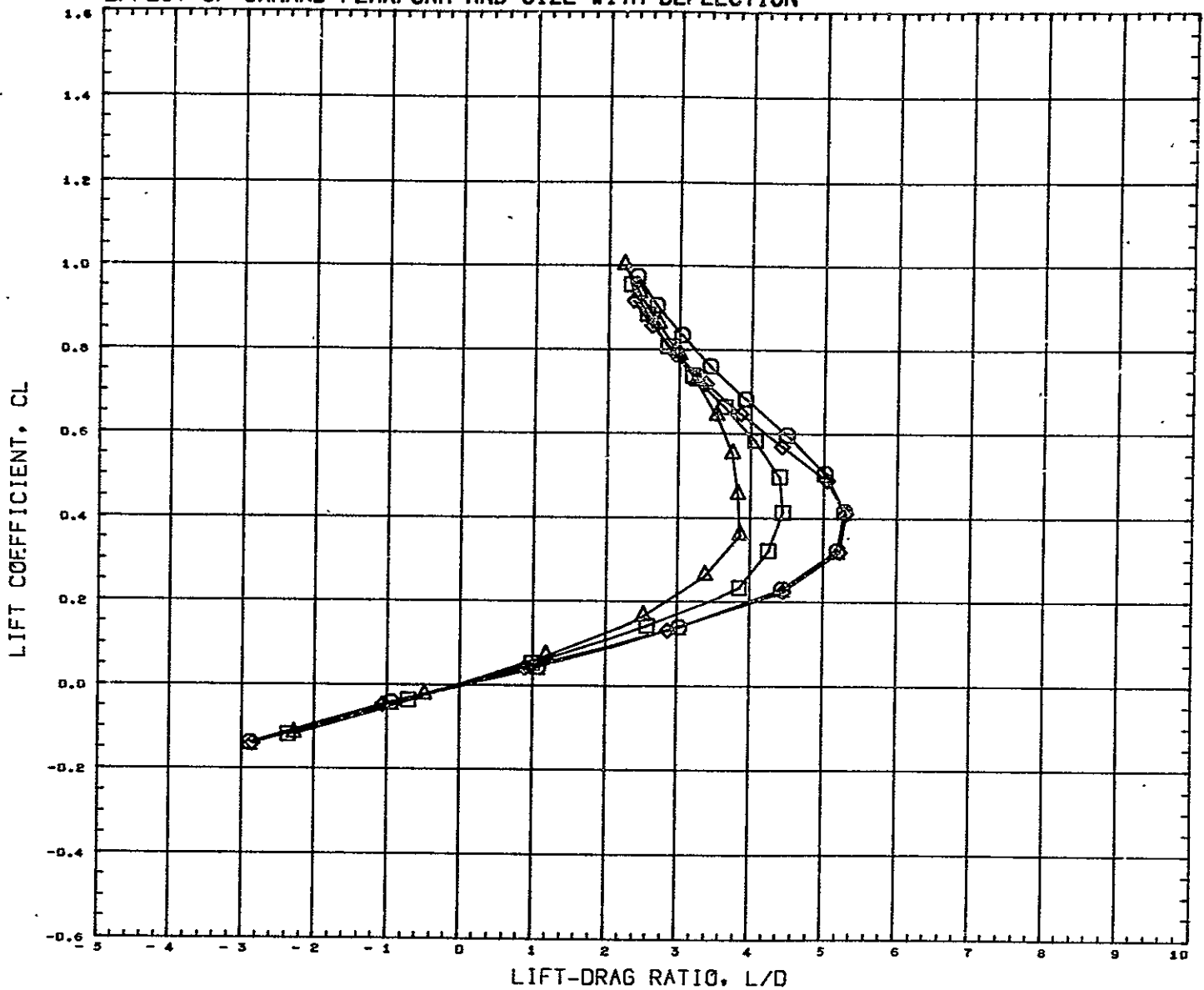
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(BCHA10) GDLST 587-0 B19W10-1V7C4  
 (BCHA07) GDLST 587-0 B19W10V7C4  
 (ICMA45) GDLST 587-0 B19W10V7C6 (POS. 1)  
 (ICMA44) GDLST 587-0 B19W10V7C6 (POS. 1)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
1.000	20.000	0.000	60.000	REFL 15.0620 IN.
1.000	0.000	0.000	60.000	REFB 30.4400 IN.
1.000	20.000	0.000	60.000	XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF CANARD PLANFORM AND SIZE WITH DEFLECTION



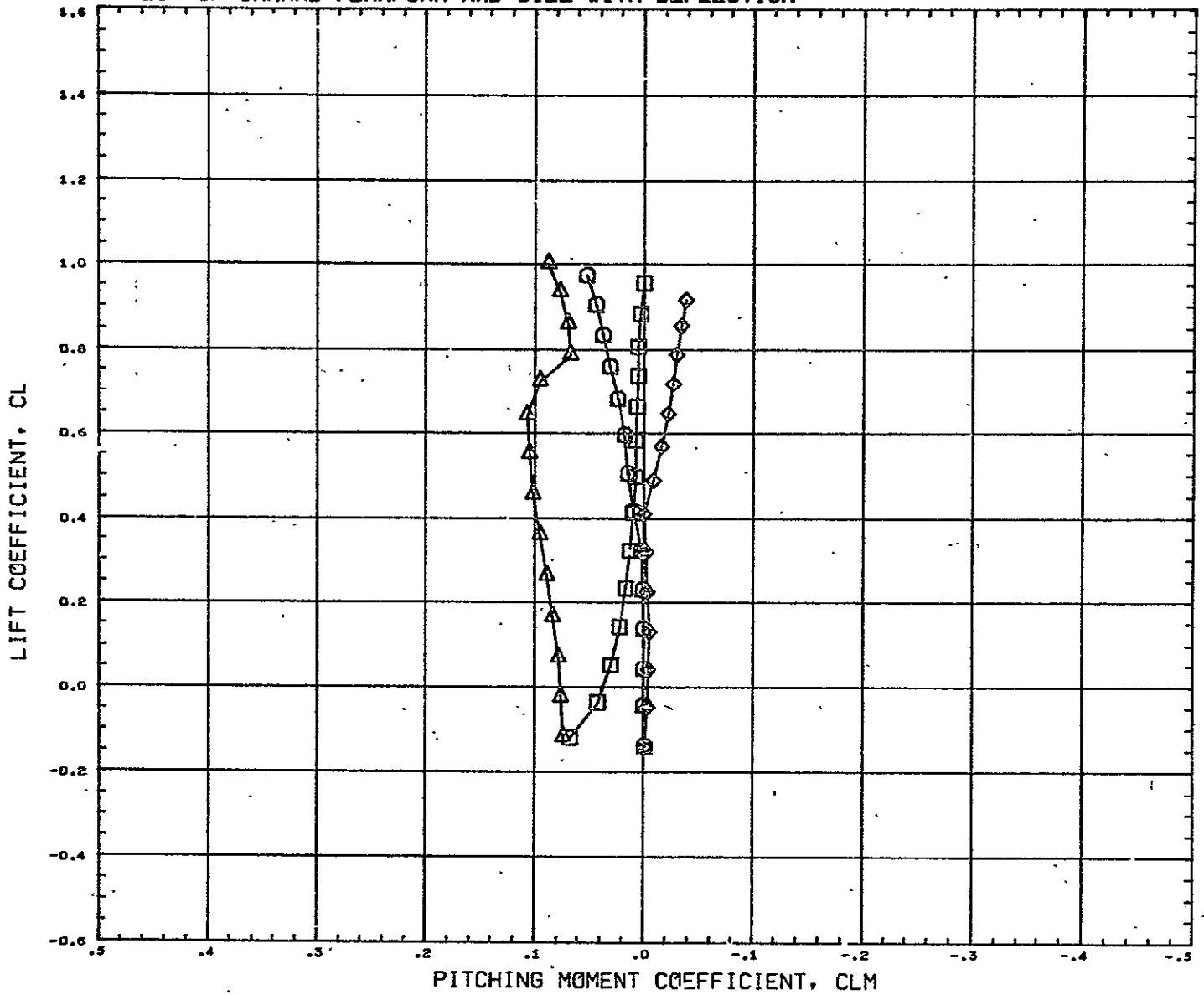
LIFT-DRAGE RATIO, L/D

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCNA10)	GDLST 587-D B19W10-1V7C4
(BCNA07)	GDLST 587-D B19W10V7C4
(ICNA45)	GDLST 587-D B19W10V7C6 (POS. 1)
(ICNA44)	GDLST 587-D B19W12V7C6 (POS. 1)

BETA 0.000

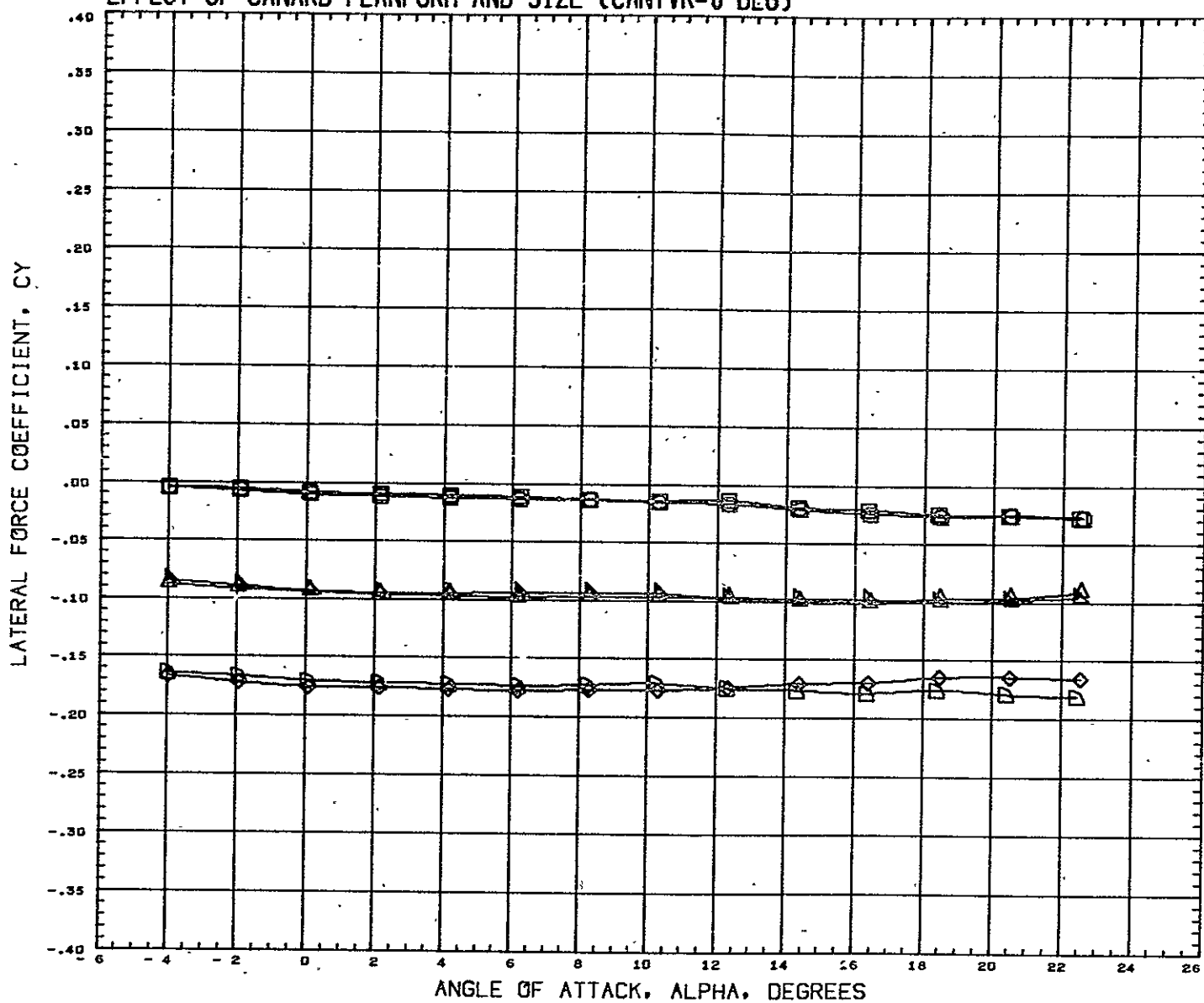
CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
1.000	20.000	0.000	60.000	REFL 15.0620 IN.
1.000	0.000	0.000	60.000	REFB 30.4400 IN.
1.000	20.000	0.000	60.000	XNRF 33.4360 IN.
				YNRF 0.0000 IN.
				ZNRF 3.9380 IN.
				SCALE 0.0175

# EFFECT OF CANARD PLANFORM AND SIZE WITH DEFLECTION



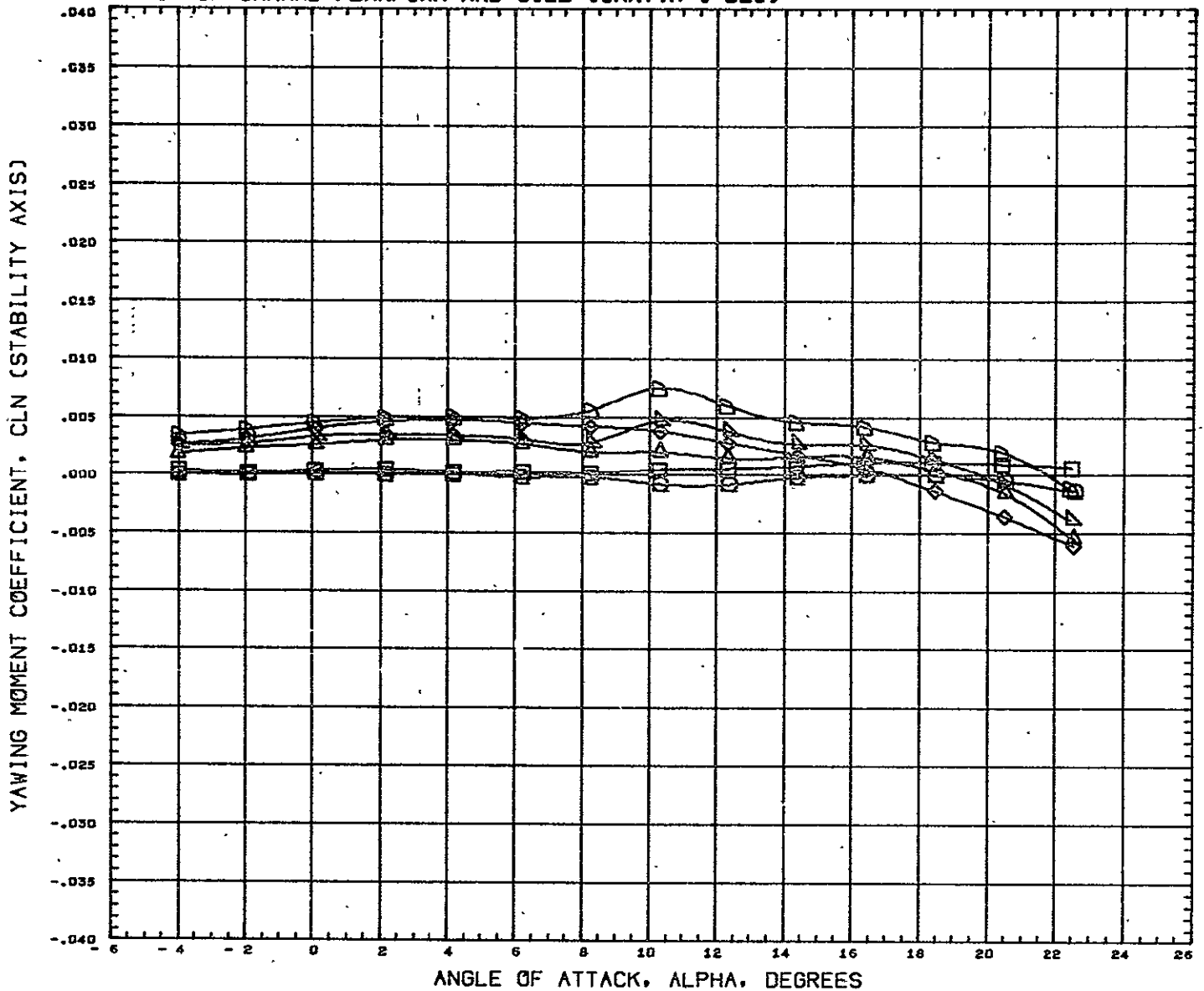
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA10)	GDLST 587-D B19W10-1V7C4	1.000	0.000	0.000	60.000	REFS	343.8704	SG. IN
(BCMA07)	GDLST 587-D B19W10V7C4	1.000	20.000	0.000	30.000	REFL	15.0620	IN.
(ICHA45)	GDLST 587-D B19W10V7C6 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ICHA44)	GDLST 587-D B19W10V7C6 (POS. 1)	1.000	20.000	0.000	60.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
BETA	0.000							

# EFFECT OF CANARD PLANFORM AND SIZE (CANTVR=0 DEG)



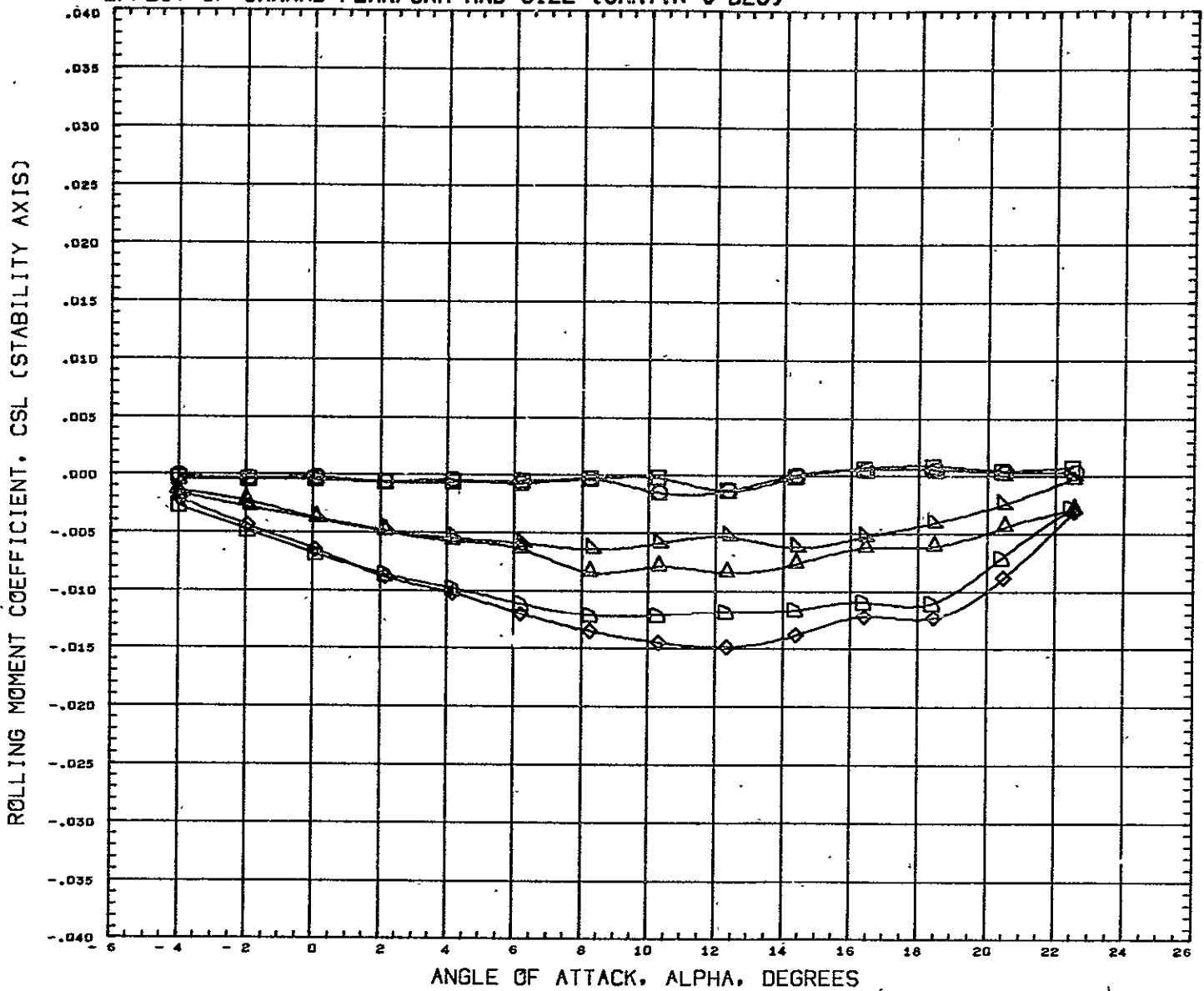
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAFR	Q	REFERENCE INFORMATION		
(DCMA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(DCMA11)	GDLST 587-0 B19W10V7C4 (POS. 1)	4.000	0.000	0.000	7.500	REFL	15.0620	IN.
(DCMA12)	GDLST 587-0 B19W10V7C4 (POS. 1)	8.000	0.000	0.000	60.000	REFB	30.4400	IN.
(OCHA45)	GDLST 587-0 B19W10V7C6 (POS. 1)	0.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(PCHA45)	GDLST 587-0 B19W10V7C6 (POS. 1)	4.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(QCHA45)	GDLST 587-0 B19W10V7C6 (POS. 1)	8.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
	CANARD 1.000					FILE	0.0175	

# EFFECT OF CANARD PLANFORM AND SIZE (CANTVR=0 DEG)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVR	CFLAPR	Q	REFERENCE INFORMATION		
(DCMA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(DCMA11)	GDLST 587-0 B19W10V7C4 (POS. 1)	4.000	0.000	0.000	60.000	REFL	15.0620	IN.
(DCMA12)	GDLST 587-0 B19W10V7C4 (POS. 1)	8.000	0.000	0.000	60.000	REFB	30.4400	IN.
(OCMA45)	GDLST 587-0 B19W10V7C6 (POS. 1)	0.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(PCMA45)	GDLST 587-0 B19W10V7C6 (POS. 1)	4.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(QCM445)	GDLST 587-0 B19W10V7C6 (POS. 1)	8.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
	CANARD 1.000					SCALE	0.0175	

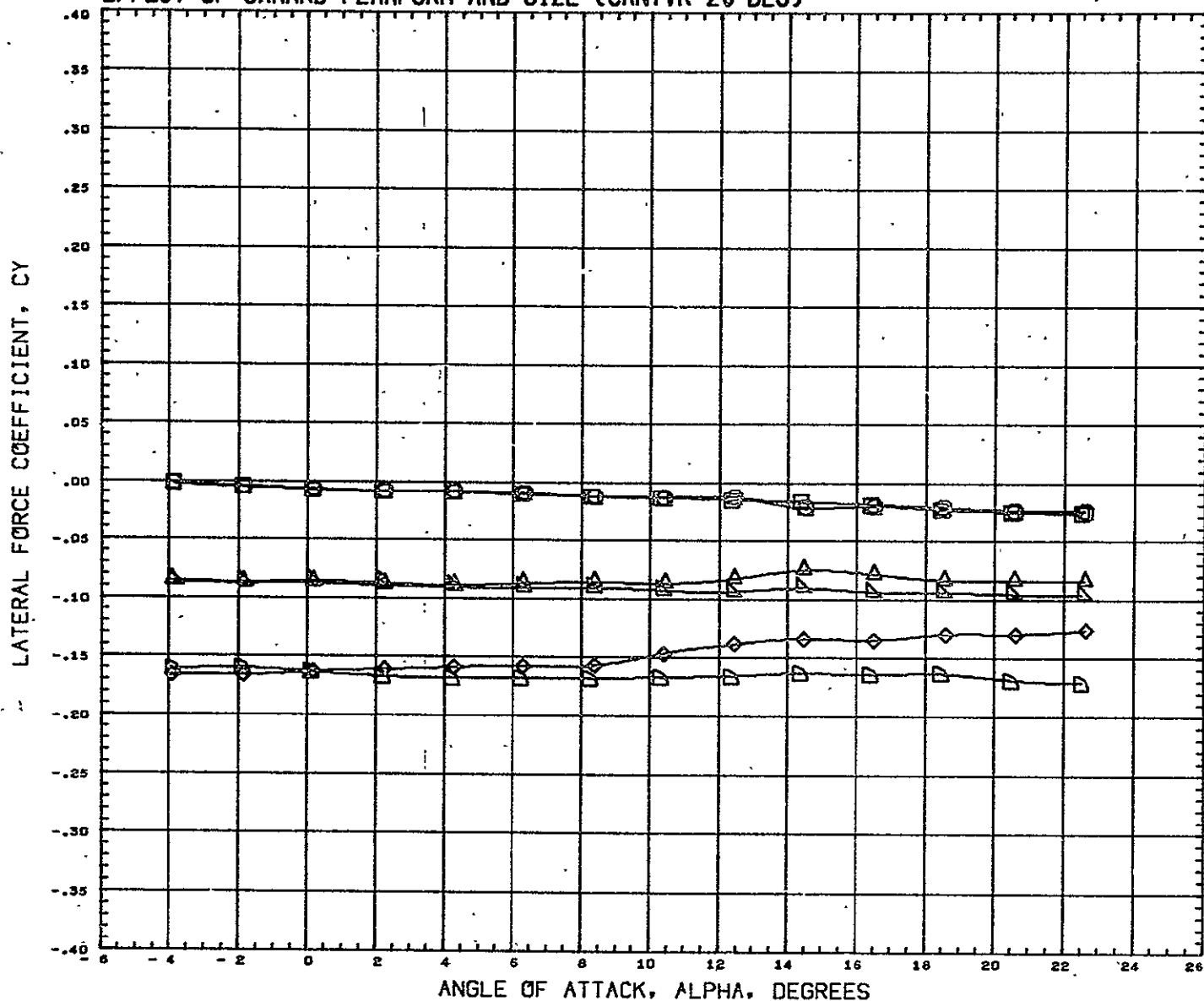
# EFFECT OF CANARD PLANFORM AND SIZE (CANTVR=0 DEG)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCMA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN.
(DCMA11)	GDLST 587-0 B19W10V7C4 (FOS. 1)	4.000	0.000	0.000	60.000	REFL	15.0620	IN.
(DCMA12)	GDLST 587-0 B19W10V7C4 (FOS. 1)	8.000	0.000	0.000	60.000	REFB	30.4400	IN.
(OCMA45)	GDLST 587-0 B19W13V7C6 (FOS. 1)	0.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(PCMA45)	GDLST 587-0 B19W10V7C6 (FOS. 1)	4.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(QCM445)	GDLST 587-0 B19W10V7C6 (FOS. 1)	8.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
CANARD 1.000							SCALE	0.0175

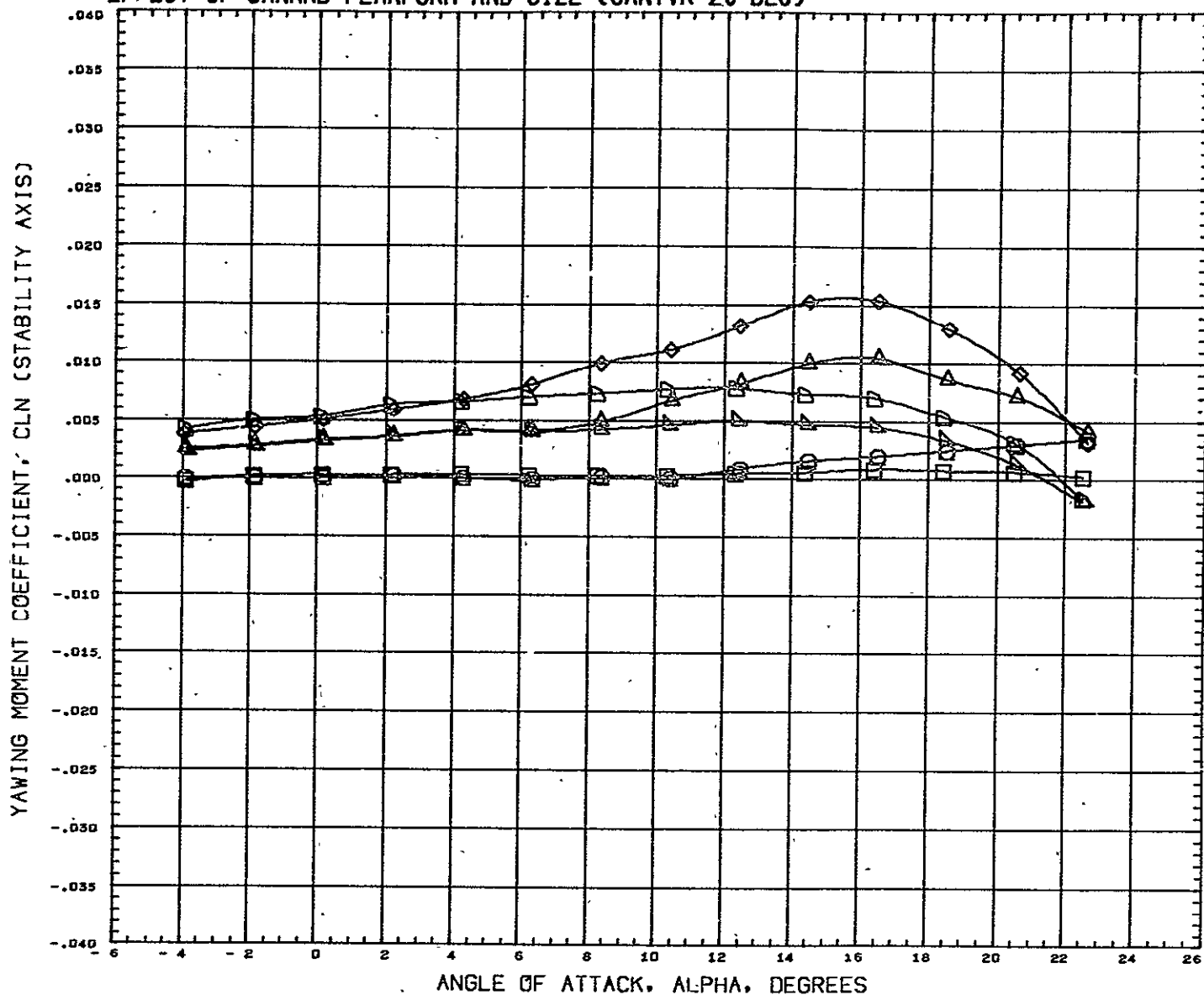


# EFFECT OF CANARD PLANFORM AND SIZE (CANTVR=20 DEG)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCMA07)	GDLST 587-0 B19W10V7C4	0.000	20.000	0.000	60.000	REFS	343.8704	SQ. IN.
(DCMA08)	GDLST 587-0 B19W10V7C4	4.000	20.000	0.000	60.000	REFL	15.0620	IN.
(DCMA09)	GDLST 587-0 B19W10V7C4	8.000	20.000	0.000	60.000	REFB	30.4400	IN.
(OCMA44)	GDLST 587-0 B19W10V7C6(POS. 1)	0.000	20.000	0.000	60.000	XNRP	33.4360	IN.
(FCMA44)	GDLST 587-0 B19W10V7C6(POS. 1)	4.000	20.000	0.000	60.000	YNRP	0.0000	IN.
(QCA44)	GDLST 587-0 B19W10V7C6(POS. 1)	8.000	20.000	0.000	60.000	ZNRP	3.9380	IN.
CANARD 1.000							SCALE	0.0175

# EFFECT OF CANARD PLANFORM AND SIZE (CANTVR=20 DEG)



ANGLE OF ATTACK, ALPHA, DEGREES

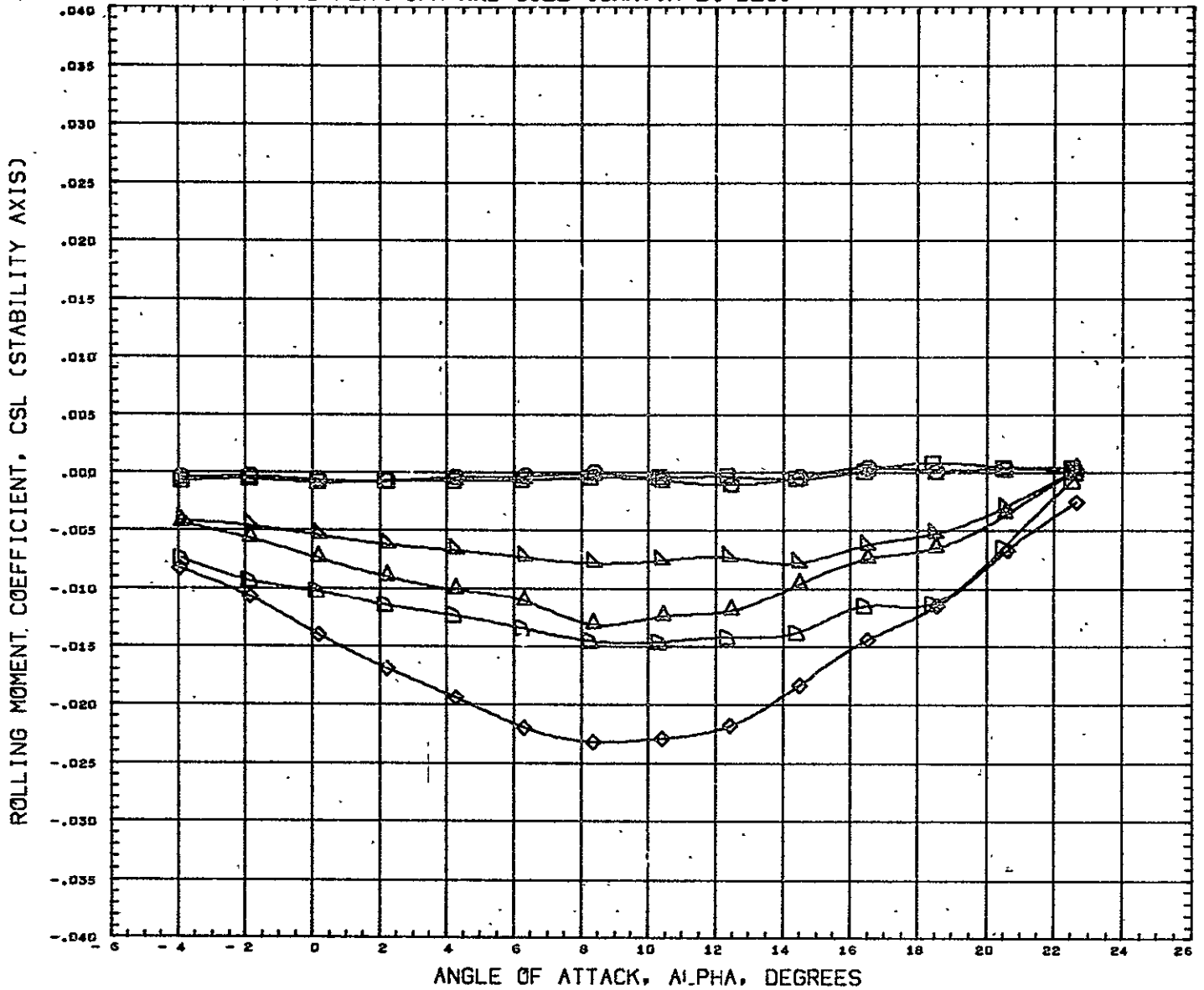
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(DCHA07) GDLST 587-0 B19W10V7C4  
 (DCHA08) GDLST 587-0 B19W10V7C4  
 (DCHA09) GDLST 587-0 B19W10V7C4  
 (OCMA44) GDLST 587-0 B19W10V7C6 (POS. 1)  
 (PCMA44) GDLST 587-0 B19W10V7C6 (POS. 1)  
 (QCHA44) GDLST 587-0 B19W10V7C6 (POS. 1)

CANARD 1.000

BETA	CANTVR	CFLAPR	Q	REFERENCE INFORMATION
0.000	20.000	0.000	60.000	REFS 343.8704 SQ. IN
4.000	20.000	0.000	60.000	REFL 15.0620 IN.
8.000	20.000	0.000	60.000	REFB 30.4400 IN.
0.000	20.000	0.000	60.000	XMRP 33.4360 IN.
4.000	20.000	0.000	60.000	YMRP 0.0000 IN.
8.000	20.000	0.000	60.000	ZMRP 3.9380 IN.
				SCALE 0.0175

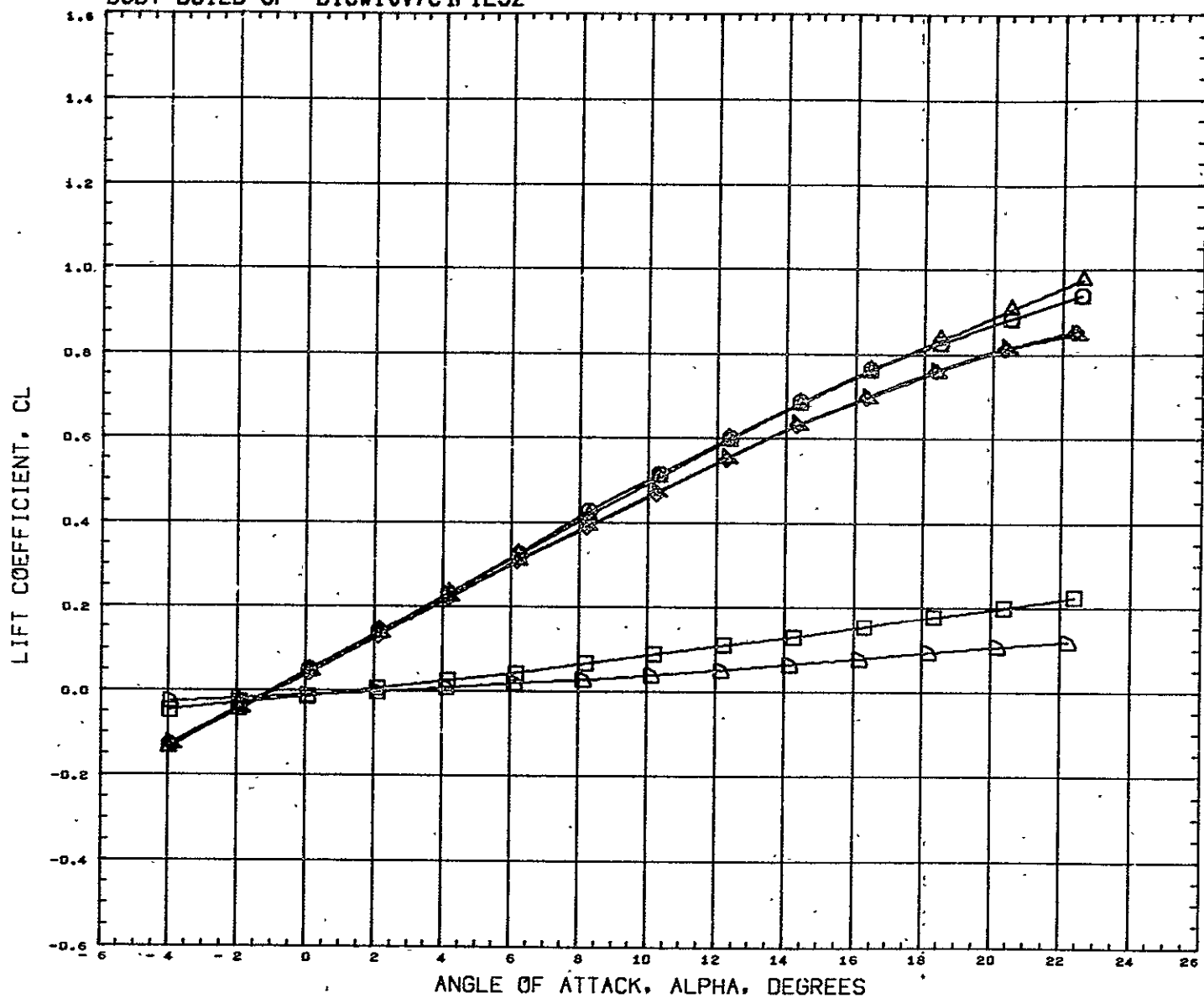
# EFFECT OF CANARD PLANFORM AND SIZE (CANTVR=20 DEG)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(DCNA07)	GDLST 587-D B19W1DV7C4	0.000	20.000	0.000	60.000	REFS 343.8704 sq. IN
(DCNA08)	GDLST 587-D B19W1DV7C4	4.000	20.000	0.000	60.000	REFL 15.0620 IN.
(DCNA09)	GDLST 587-D B19W1DV7C4	8.000	20.000	0.000	60.000	REFB 30.4400 IN.
(OCHA44)	GDLST 587-D B19W1CV7C6 (POS. 1)	0.000	20.000	0.000	60.000	XMRP 33.4360 IN.
(PCHA44)	GDLST 587-D B19W1DV7C6 (POS. 1)	4.000	20.000	0.000	60.000	YMRP 0.0000 IN.
(QCHA44)	GDLST 587-D B19W1DV7C6 (POS. 1)	8.000	20.000	0.000	60.000	ZMRP 3.9380 IN.
						SCALE 0.0175
CANARD	1.000					

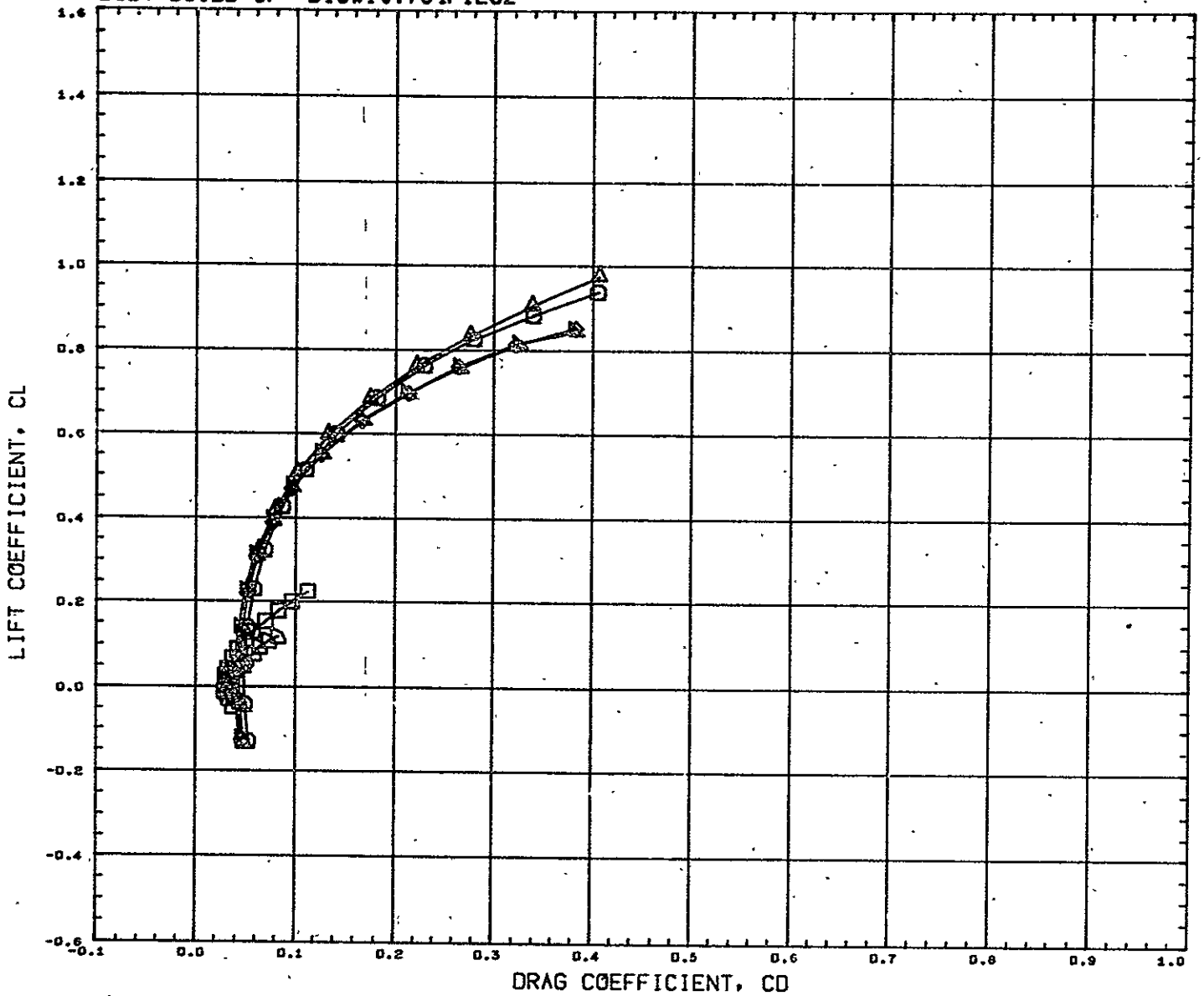
8

# BODY BUILD-UP B19W10V7C4P1E32



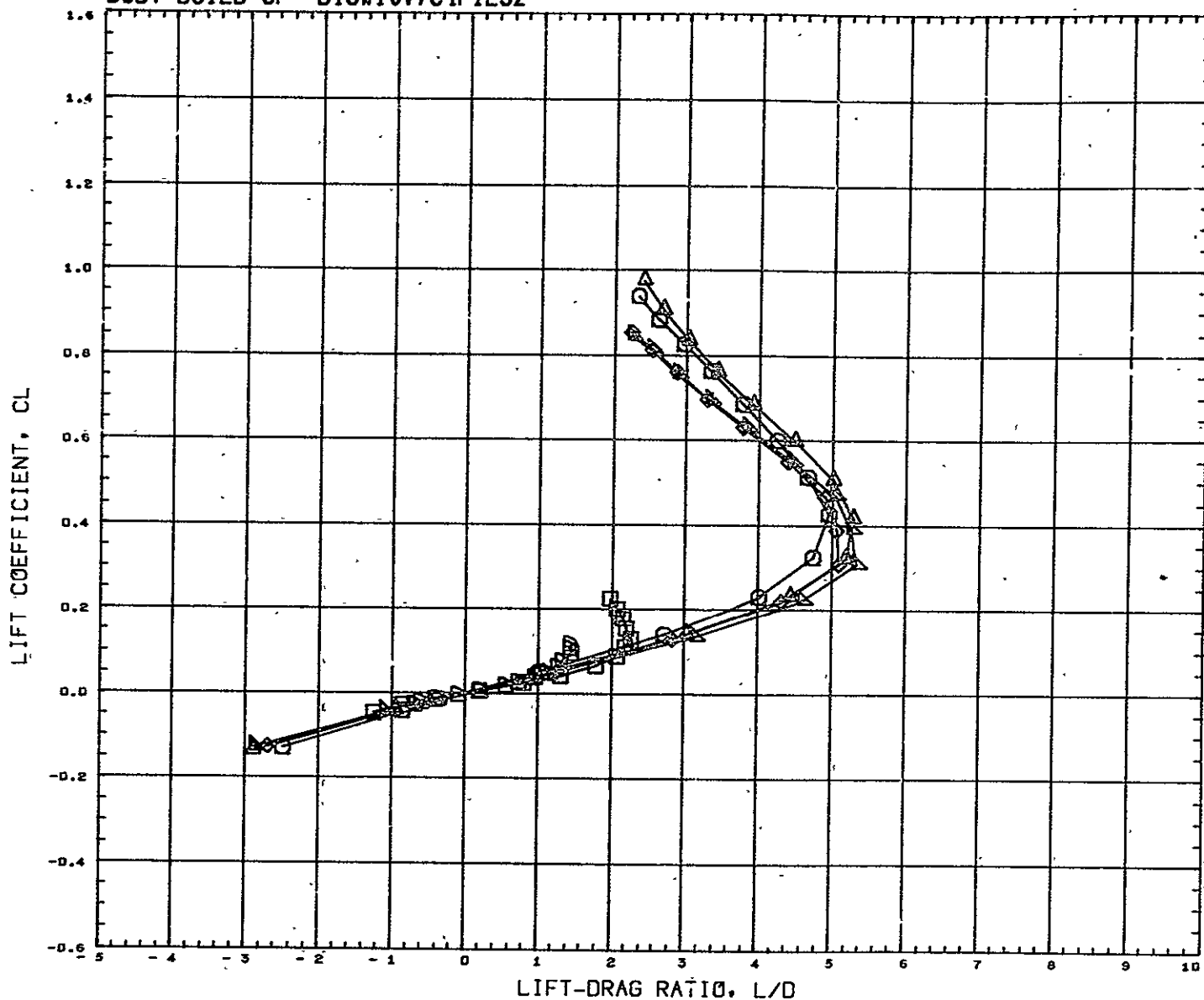
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVIR	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA13)	GDLST 587-D B19W10V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(BCMA10)	GDLST 587-D B19W10-1V7C4	1.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ICMA60)	GDLST 587-D B19W10V7				60.400	REFB	30.4400	IN.
(ICMA52)	GDLST 587-D B19C4:POSITION 1:	1.000	0.000	0.000	60.400	XMRP	33.4360	IN.
(ICMA50)	GDLST 587-D B19W10				60.400	YMRP	0.0000	IN.
(ICMA51)	GDLST 587-D B19				60.400	ZMRP	3.9380	IN.
	BETA 0.000					SCALE	0.0175	

# BODY BUILD-UP B19W10V7C4P1E32



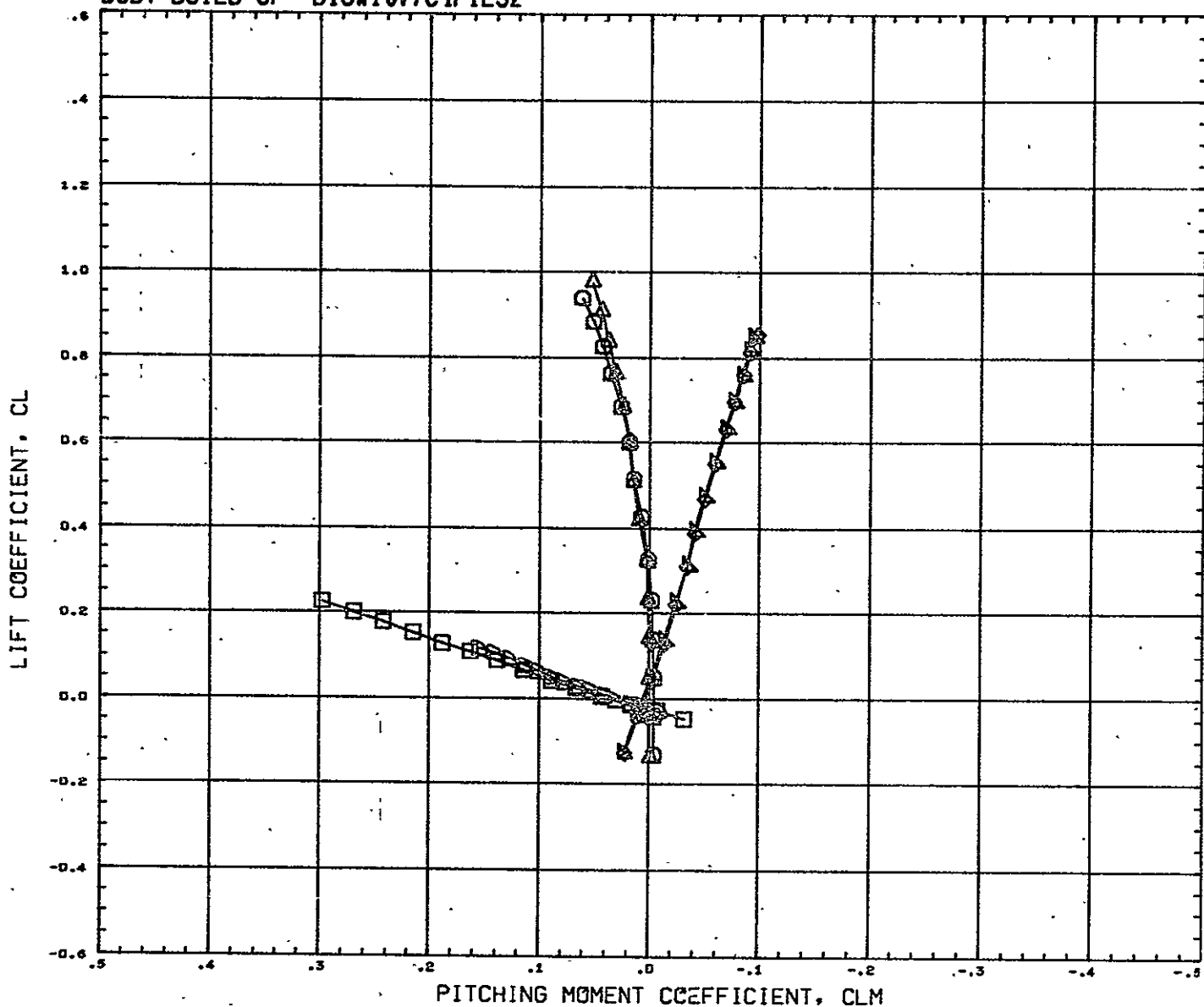
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA13)	GDLST 587-D B19W10V7F1E32C4 (POS. 1)	1.000	0.000	0.000	60.400	REFS	343.8704	sq. IN
(BCMA10)	GDLST 587-D B19W10-1V7C4	1.000	0.000	0.000	60.400	REFL	15.0620	IN.
(ICMA60)	GDLST 587-D B19W1CV7				60.400	REFB	30.4480	IN.
(ICMA52)	GDLST 587-D B19C4 (POSITION 1)	1.000	0.000	0.000	60.400	XHRP	33.4360	IN.
(ICMA50)	GDLST 587-D B19W10				60.400	YHRP	0.0000	IN.
(ICMA51)	GDLST 587-D B19				60.400	ZHRP	3.9380	IN.
BETA	0.000					SCALE	0.0175	

# BODY BUILD-UP B19W10V7C4P1E32



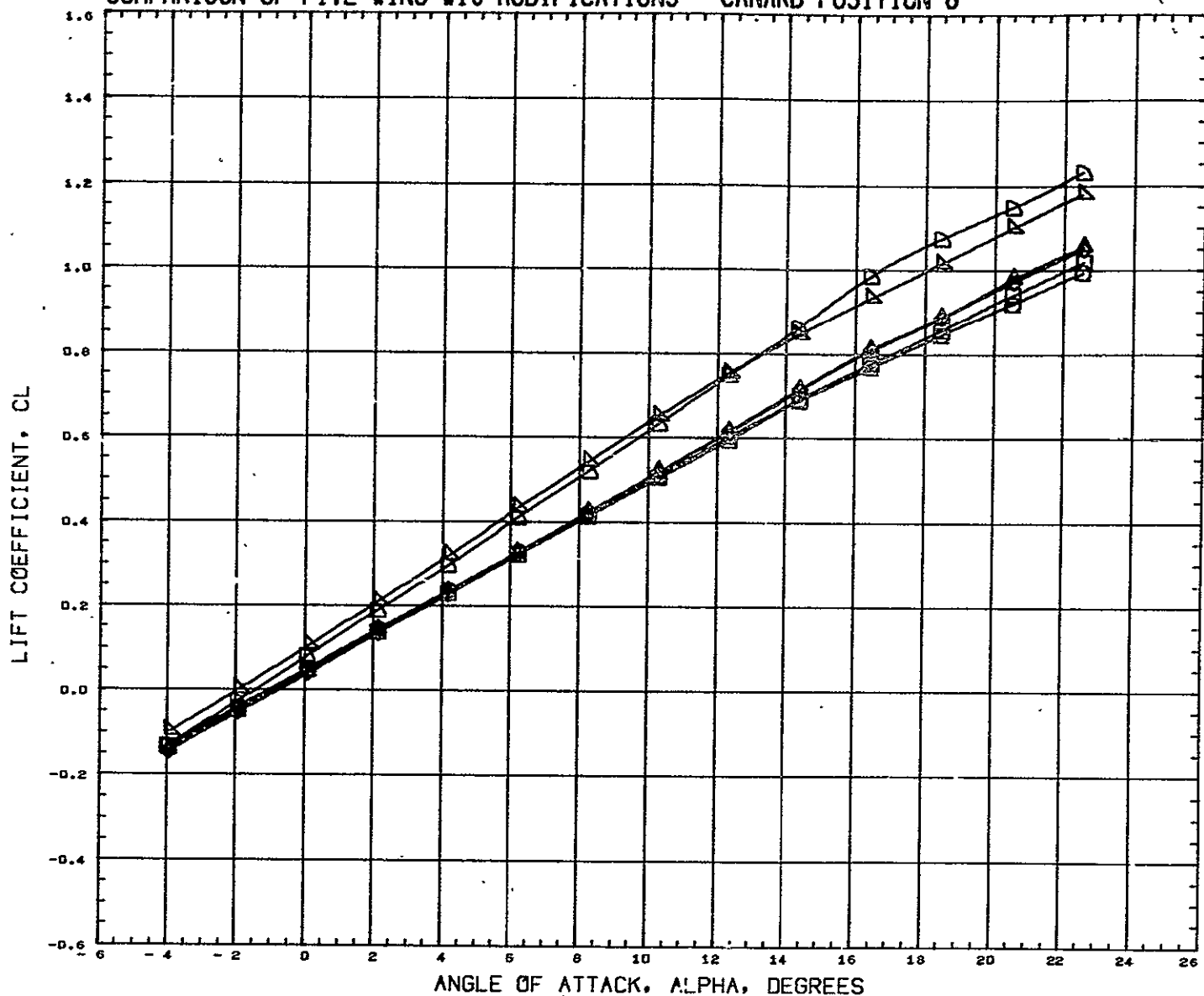
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
(BCMA13)	GDLST 587-0 B19W10V7P1E32C4 (POS. 1)	1.000	0.000	0.000	7.500	REFS 343.8704 SQ. IN
(BCMA10)	GDLST 587-0 B19W10-1V7C4	1.000	0.000	0.000	60.000	REFL 15.0620 IN.
(ICMA60)	GDLST 587-0 B19W10V7				60.400	REFB 30.4400 IN.
(ICMA52)	GDLST 587-0 B19C4 (POSITION 1)	1.000	0.000	0.000	60.400	XHRP 33.4360 IN.
(ICMA50)	GDLST 587-0 B19W10				60.400	YHRP 0.0000 IN.
(ICMA51)	GDLST 587-0 B19				60.400	ZHRP 3.9380 IN.
BETA	0.000					SCALE 0.0175

# BODY BUILD-UP B19W10V7C4P1E32



DATA SET S/M BOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(BCMA13)	GDLST 587-D B19W10V7P1E32C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	sq. IN
(BCMA10)	GDLST 587-D B19W10-1V7C4	1.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ICMA60)	GDLST 587-D B19W10V7				60.400	REFB	30.4400	IN.
(ICMA52)	GDLST 587-D B19C4 (POSITION 1)	1.000	0.000	0.000	60.400	XMRP	33.4360	IN.
(ICMA50)	GDLST 587-D B19W10				60.400	YMRP	0.0000	IN.
(ICMA51)	GDLST 587-D B19				60.400	ZMRP	3.9380	IN.
							0.0175	
BETA	0.000							

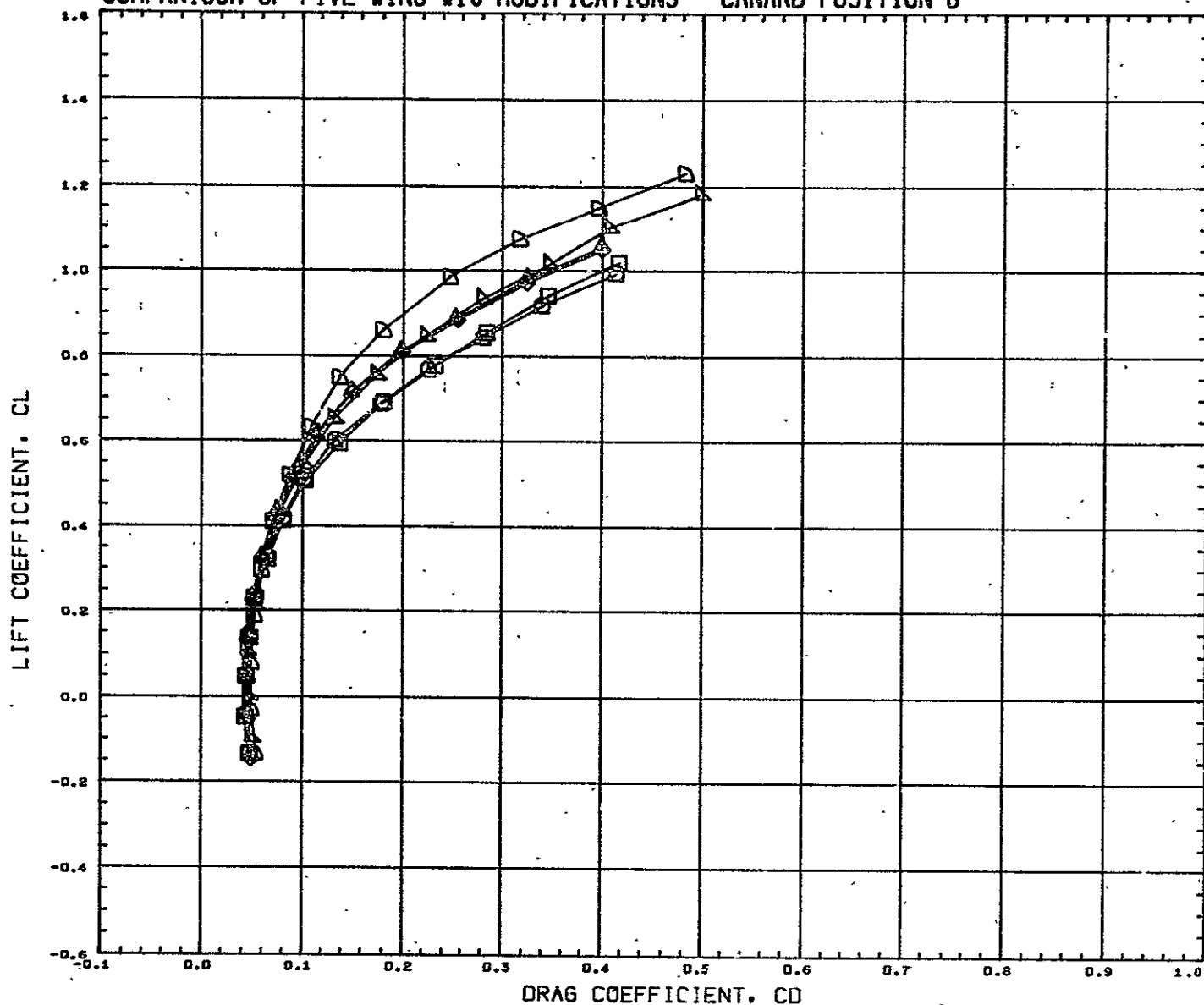
# COMPARISON OF FIVE WING W10 MODIFICATIONS CANARD POSITION 8



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(HCMA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN.
(ACHA19)	GDLST 587-0 B19W10-2V7C4	0.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ACHA20)	GDLST 587-0 B19W10V7C4	0.000	0.000	0.000	60.000	REFB	30.4400	IN.
(CCMA65)	GDLST 587-0 B19W10-3V7C4 (POS. 8)	0.000	0.000	0.000	60.000	XMNP	33.4360	IN.
(CCMA68)	GDLST 587-0 B19W10-4V7C4 (POS. 8)	0.000	0.000	0.000	60.000	YMNP	0.0000	IN.
(ECMA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
CANARD 8.000						SCALE	0.0175	

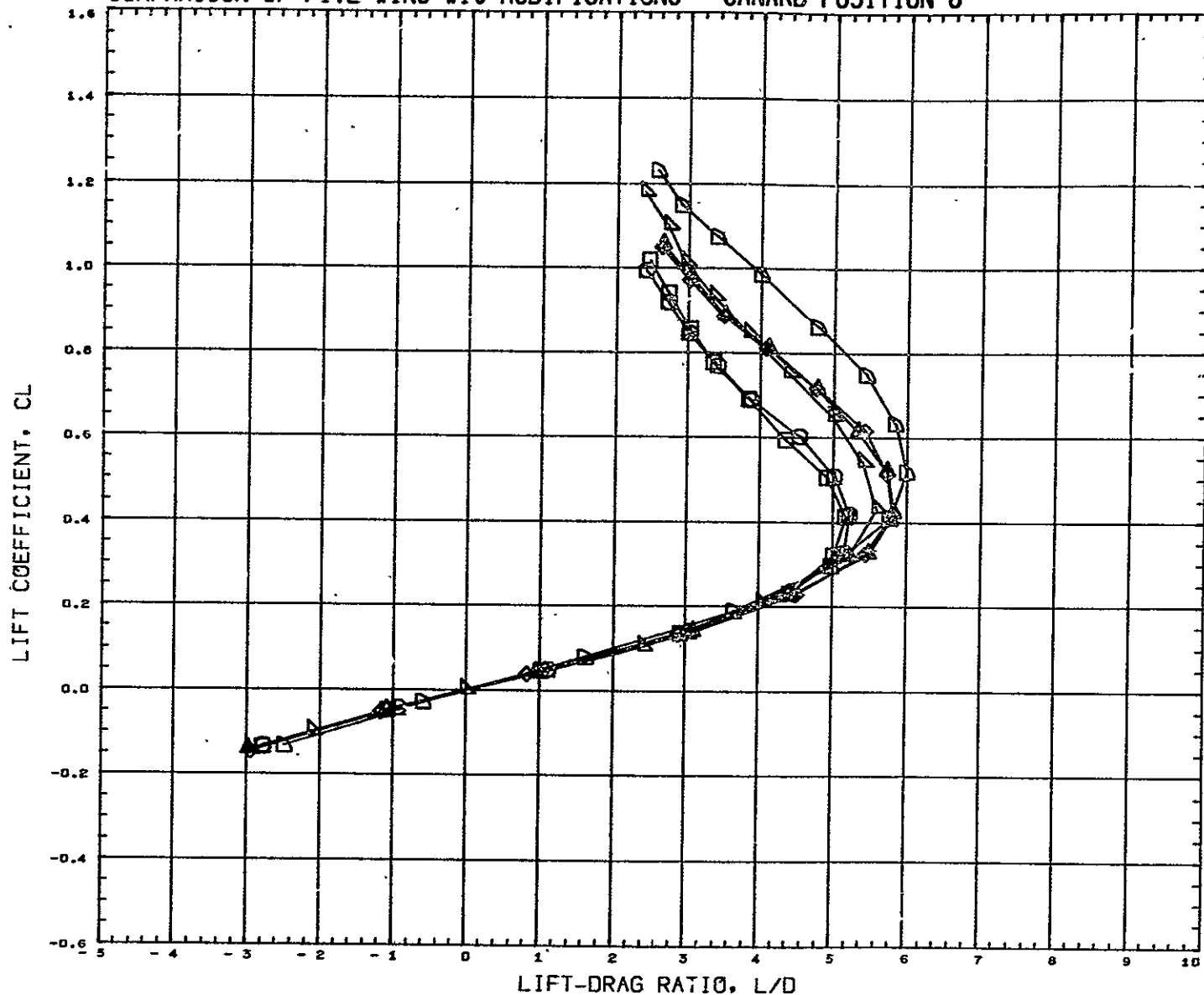


# COMPARISON OF FIVE WING W10 MODIFICATIONS CANARD POSITION 8



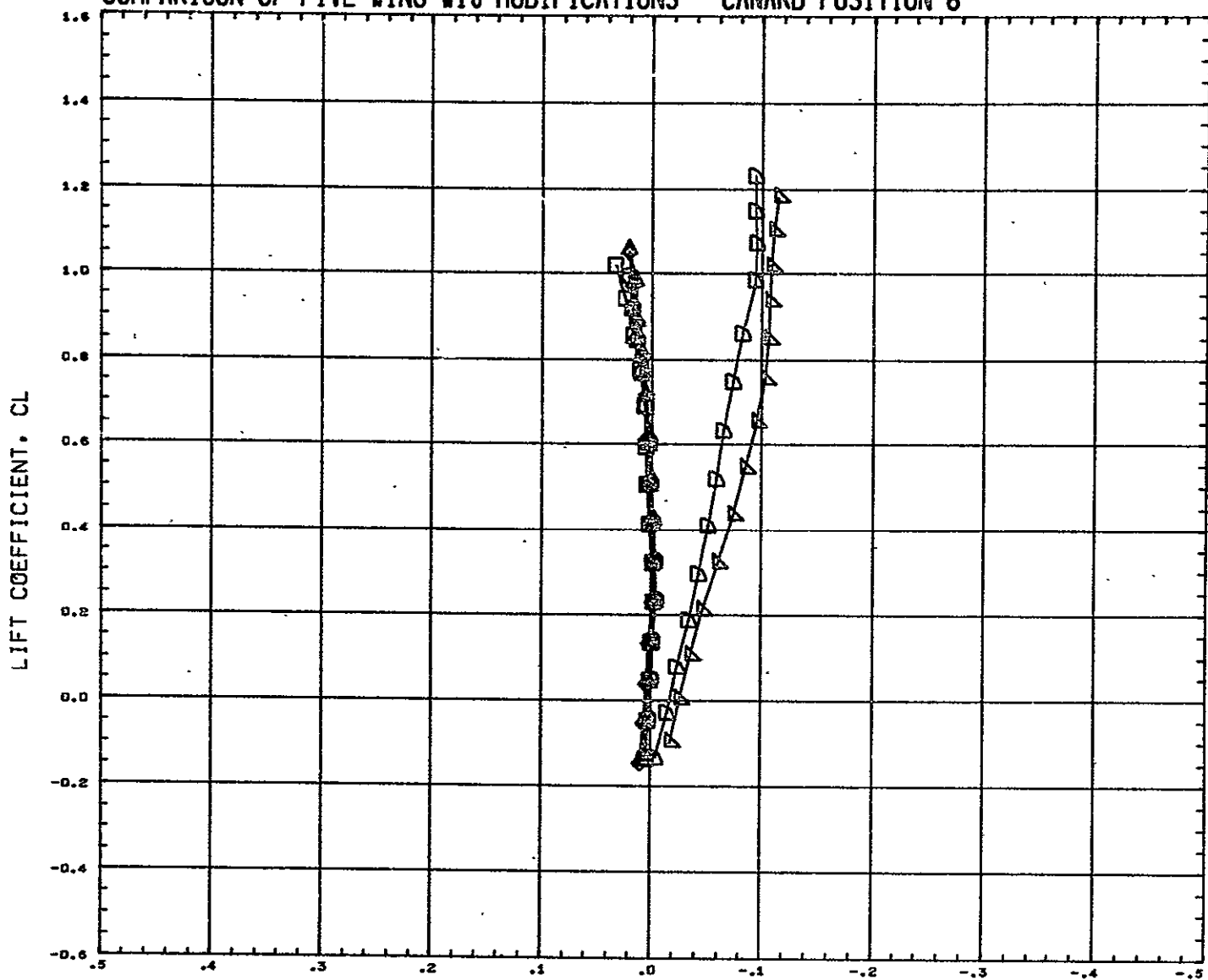
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVT	CFLAPR	Q	REFERENCE INFORMATION
(HCA10)	GDLST 587-D B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(ACA19)	GDLST 587-D B19W10-2V7C4	0.000	0.000	0.000	60.000	REFL 15.0620 IN.
(ACA20)	GDLST 587-D B19W10V7C4	0.000	0.000	0.000	60.000	REFB 30.4400 IN.
(CCA65)	GDLST 587-D B19W10-3V7C4 (POS. 8)	0.000	0.000	0.000	60.000	XMRP 33.4360 IN.
(CCA68)	GDLST 587-D B19W10-4V7C4 (POS. 8)	0.000	0.000	0.000	60.000	YMRP 0.0000 IN.
(CCA21)	GDLST 587-D B19W10-13V7C4	0.000	0.000	0.000	60.000	ZMRP 3.9380 IN.
	CANARD 8.000					SCALE 0.0175

# COMPARISON OF FIVE WING W10 MODIFICATIONS CANARD POSITION 8



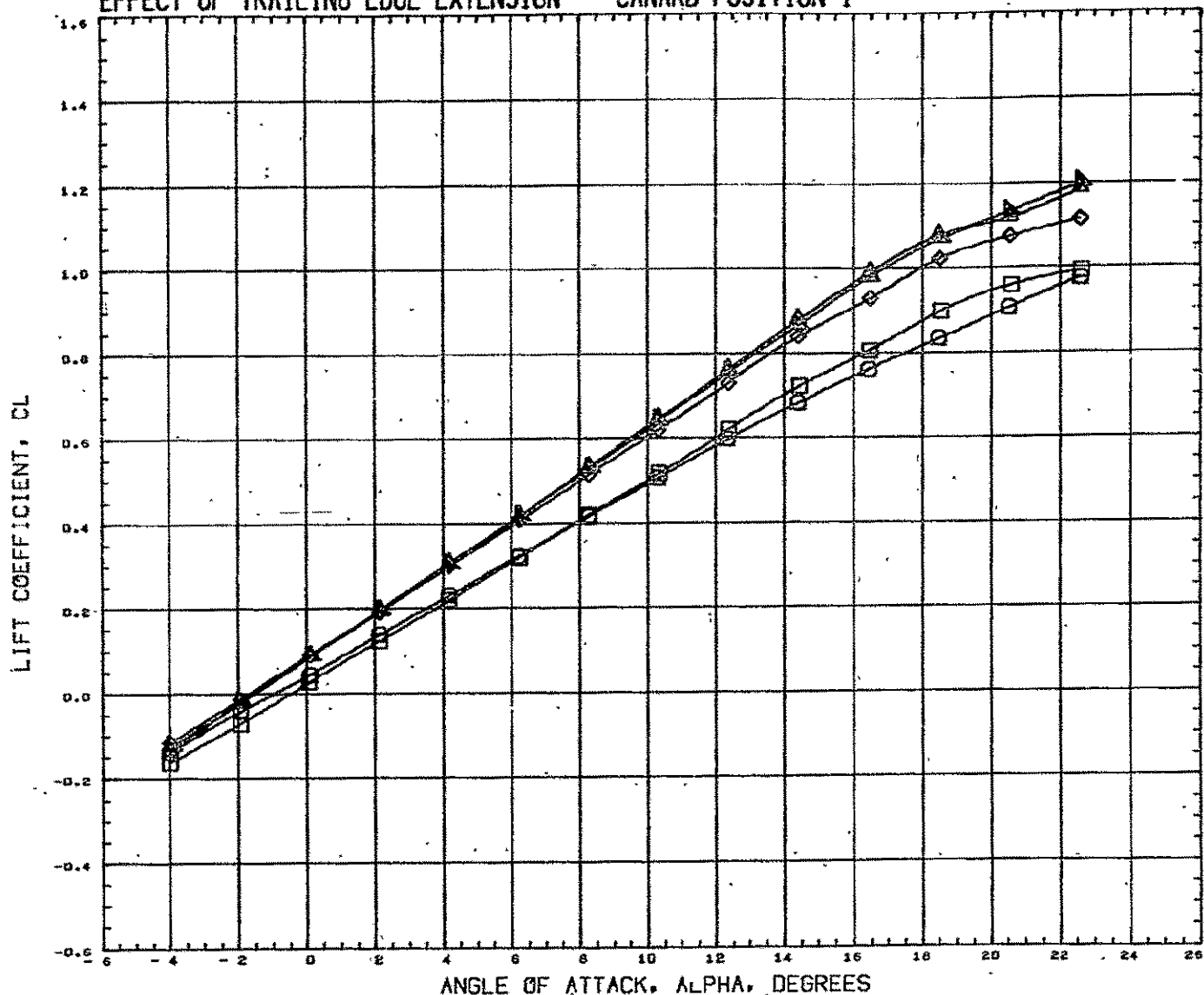
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(HCMA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(ACMA19)	GDLST 587-0 B19W10-2V7C4	0.000	0.000	0.000	60.000	REFL 15.0620 IN.
(ACHA20)	GDLST 587-0 B19W10V7C4	0.000	0.000	0.000	60.000	REFB 30.4400 IN.
(CCMA65)	GDLST 587-0 B19W10-3V7C4 (POS. 8)	0.000	0.000	0.000	60.000	XNRP 33.4360 IN.
(CCMA68)	GDLST 587-0 B19W10-4V7C4 (POS. 8)	0.000	0.000	0.000	60.000	YNRP 0.0000 IN.
(ECMA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	ZNRP 3.9380 IN.
CANARD 8.000						SCALE 0.0175

# COMPARISON OF FIVE WING W10 MODIFICATIONS CANARD POSITION 8



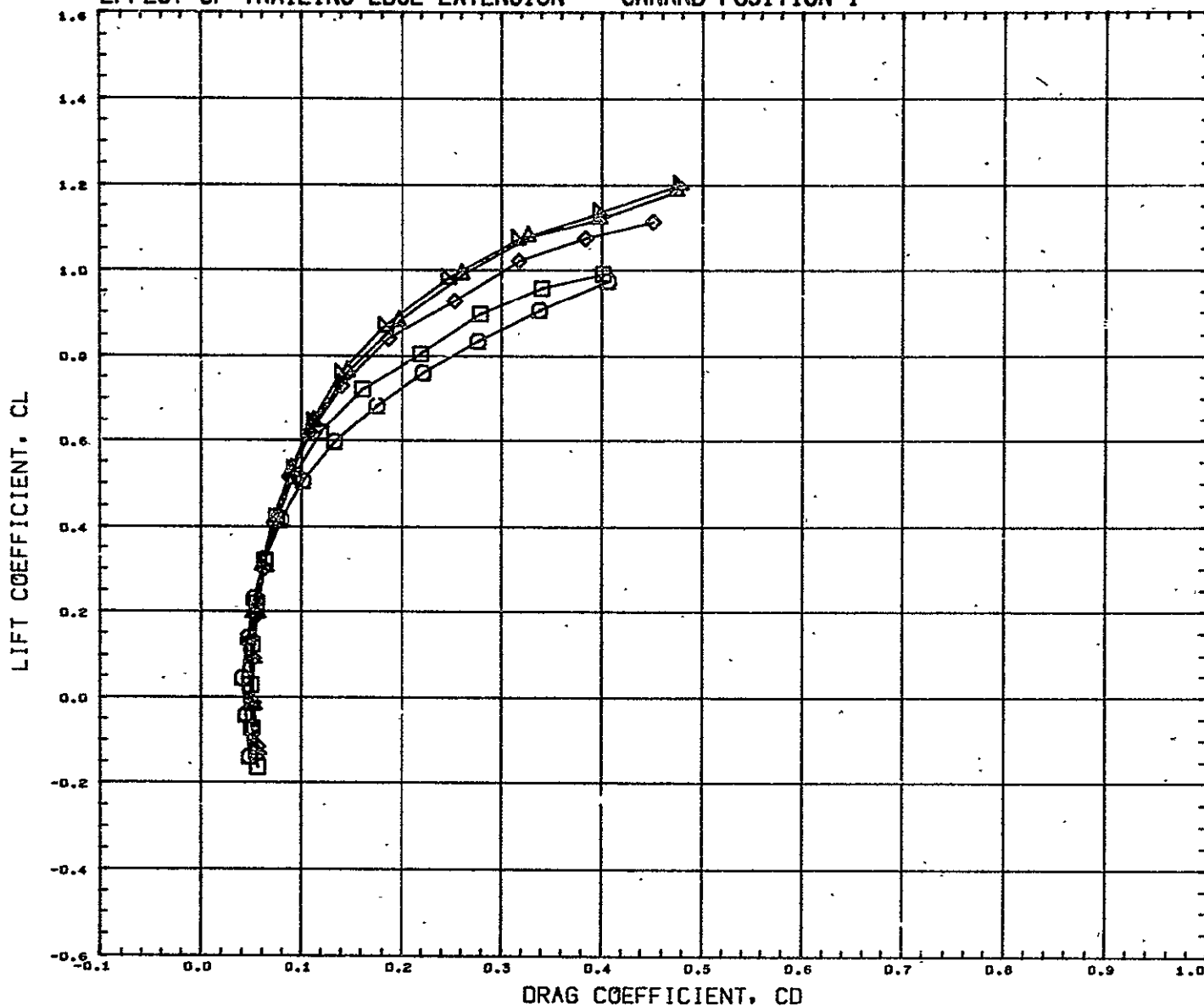
TA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTX	CFLAPR	Q	REFERENCE INFORMATION		
CHA10)	GDLST 587-0 B19W10-1V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	sq. in
CHA19)	GDLST 587-0 B19W10-2V7C4	0.000	0.000	0.000	60.000	REFL	15.0620	in.
CHA20)	GDLST 587-0 B19W10-3V7C4	0.000	0.000	0.000	60.000	REFB	30.4400	in.
CHA65)	GDLST 587-0 B19W10-4V7C4 (POS. 8)	0.000	0.000	0.000	60.000	XHRP	33.4360	in.
CHA68)	GDLST 587-0 B19W10-4V7C4 (POS. 8)	0.000	0.000	0.000	60.000	YHRP	0.0000	in.
CHA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	ZHRP	3.9380	in.
CANARD 8.000						SCALE	0.0175	

# EFFECT OF TRAILING EDGE EXTENSION CANARD POSITION 1



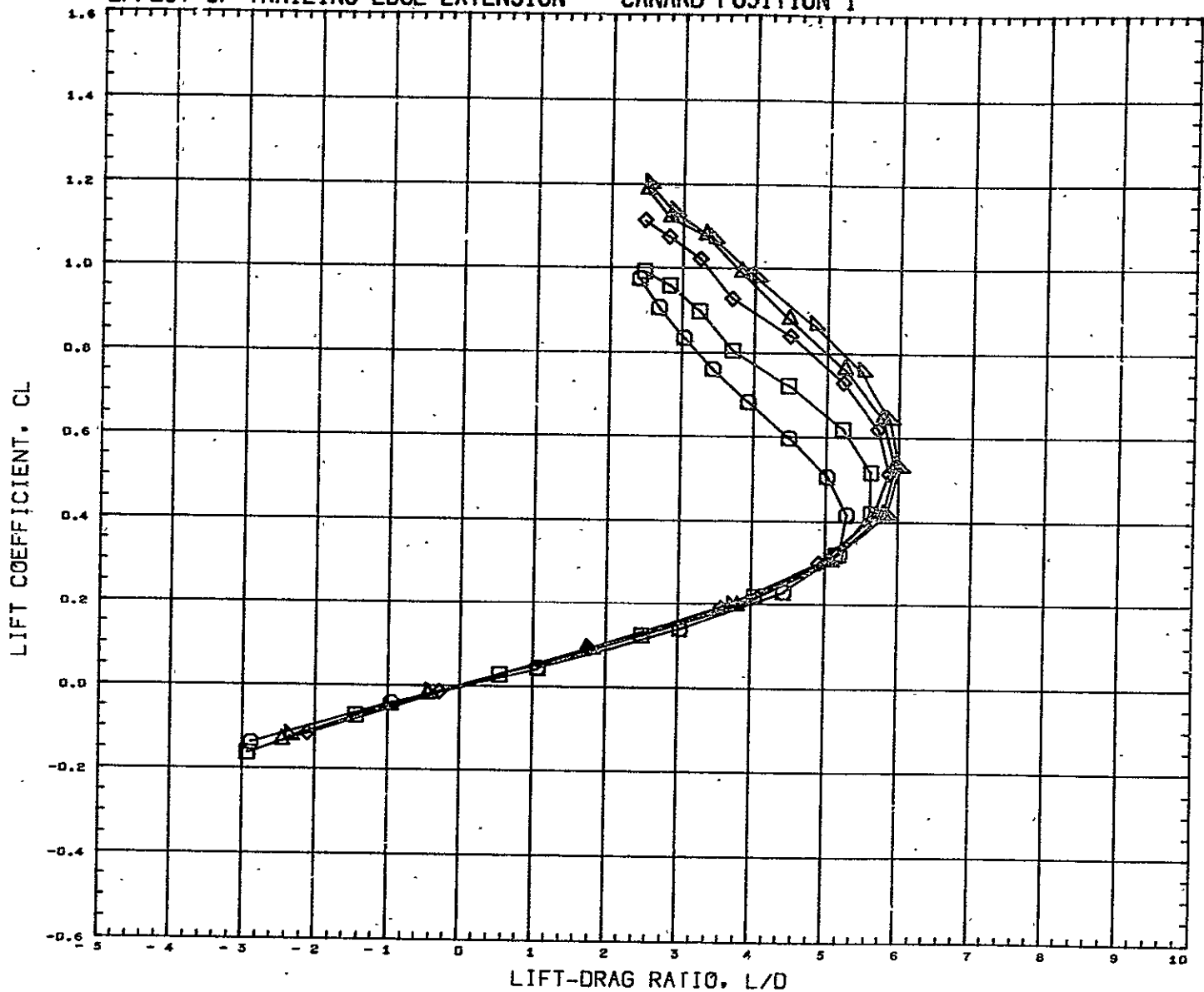
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
{BCMA10}	CDLST 587-D B19W10-1V7C4	1.000	0.000	0.000	60.000	REFS 343.8704 58. IN
{ICMA74}	CDLST 587-D B19W10-6V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL 15.0620 IN.
{ICMA75}	CDLST 587-D B19W10-7V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB 30.4400 IN.
{ICMA76}	CDLST 587-D B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.000	XMRF 33.4360 IN.
{ACMA92}	CDLST 587-D B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	YMRF 0.0000 IN.
						ZMRF 3.9380 IN.
						SCALE 0.0175
BETA	0.000					

# EFFECT OF TRAILING EDGE EXTENSION CANARD POSITION 1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION	
(BCMA10)	GDLST-587-D B19W10-1V7C4	1.000	0.000	0.000	60.000	REFS	343.8704 SQ. IN
(ICMA74)	GDLST 587-D B19W10-6V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	15.0620 IN.
(ICMA75)	GDLST 587-D B19W10-7V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	30.4400 IN.
(ICMA76)	GDLST 587-D B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.000	XMRP	33.4360 IN.
(ACMA92)	GDLST 587-D B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175
BETA	0.000						

# EFFECT OF TRAILING EDGE EXTENSION CANARD POSITION 1



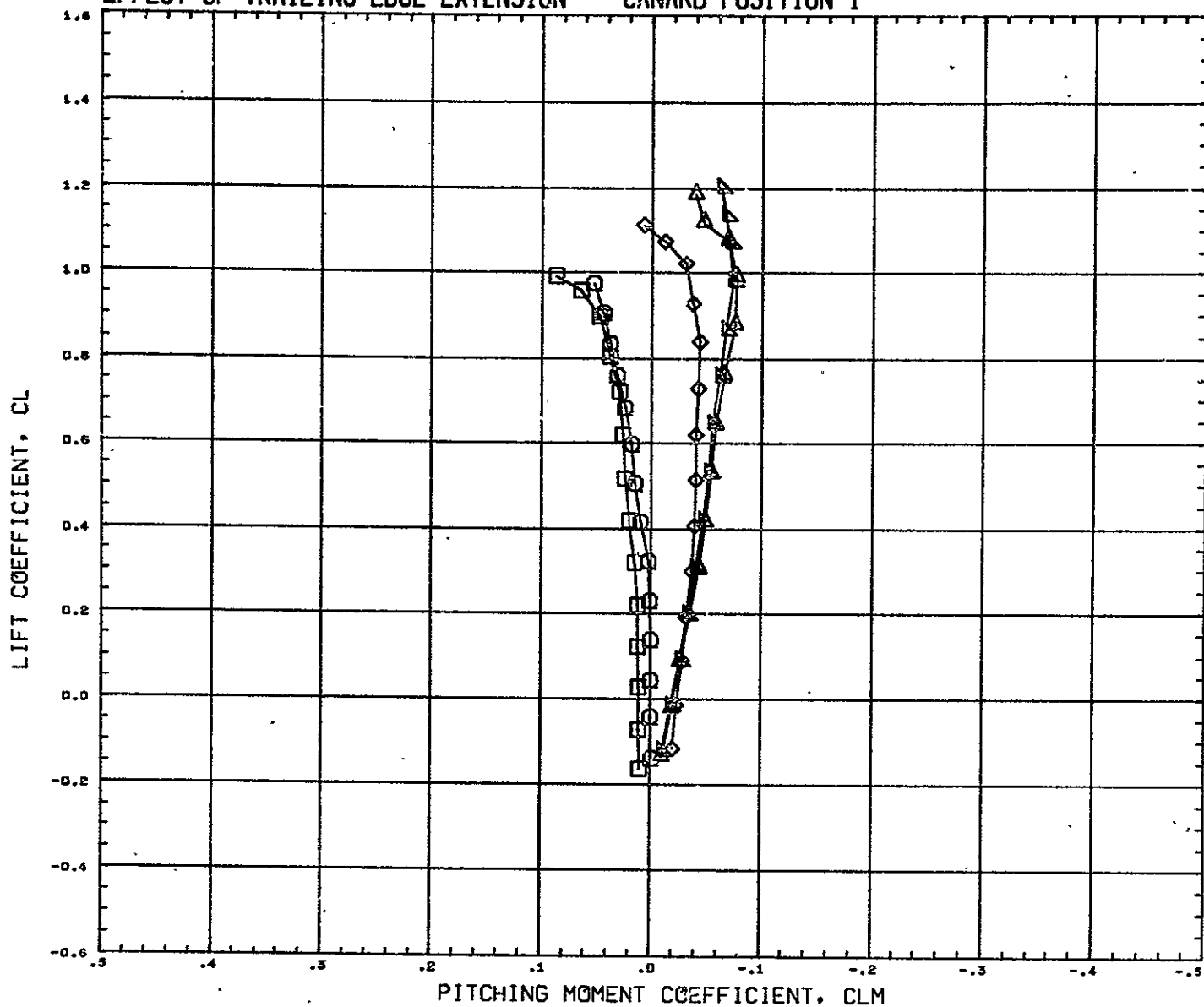
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10)	GDLST 587-D B19W10-1V7C4
(ICMA74)	GDLST 587-D B19W10-6V7C4 (POS. 1)
(ICMA75)	GDLST 587-D B19W10-7V7C4 (POS. 1)
(ICMA76)	GDLST 587-D B19W10-8V7C4 (POS. 1)
(ACHA92)	GDLST 587-D B19W10-13V7C4 (POS. 1)

BETA 6.000

CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	20.000
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9360	IN.
SCALE	0.0175	

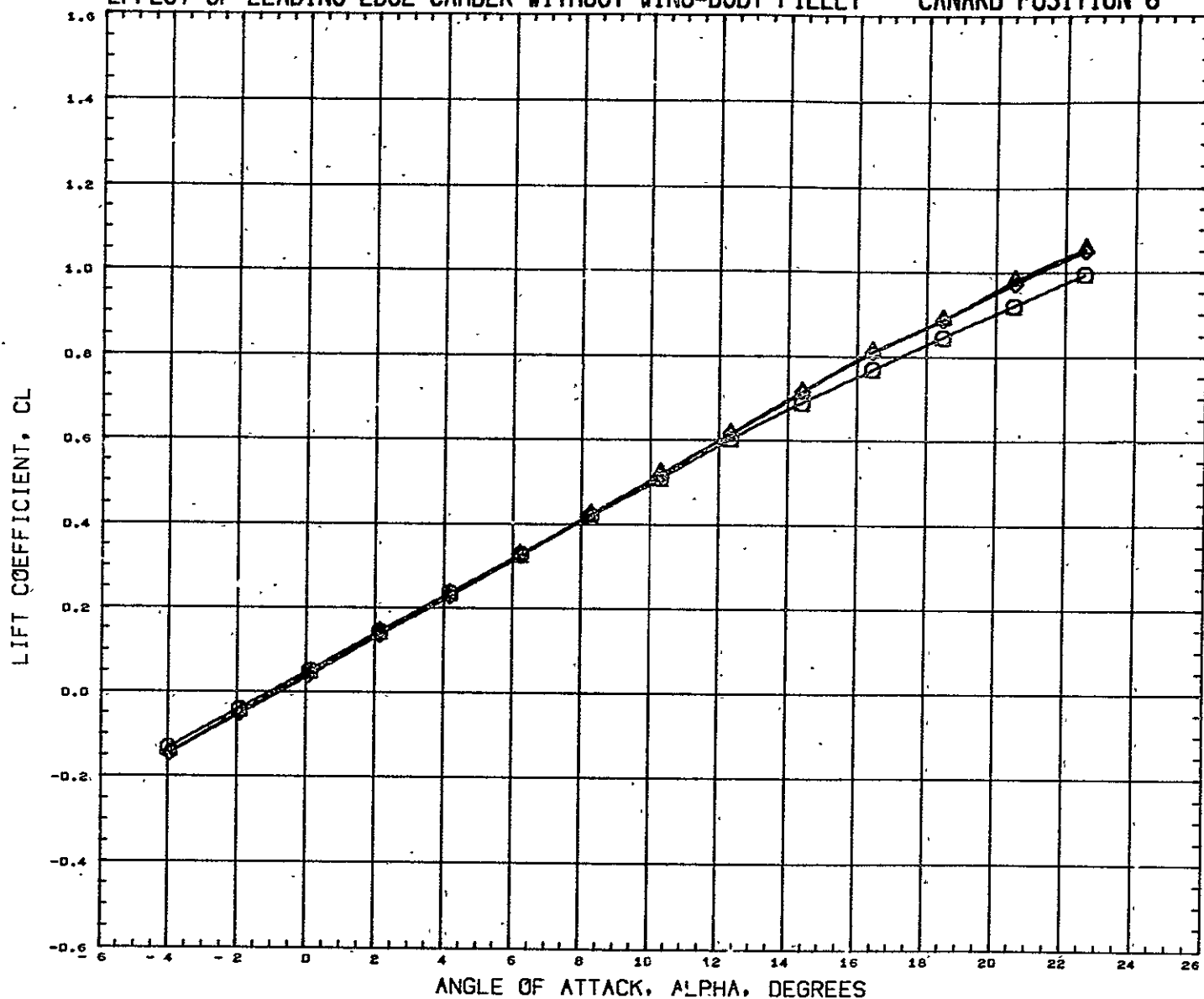
# EFFECT OF TRAILING EDGE EXTENSION CANARD POSITION 1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
BCNA10)	GDLST 587-D B19W10-1V7C4	1.000	0.000	0.000	57.500	REFS	343.8704	SQ. IN
1CNA74)	GDLST 587-D B19W10-6V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	15.0620	IN.
1CNA75)	GDLST 587-D B19W10-7V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
1CNA76)	GDLST 587-D B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.000	XMRP	33.4360	IN.
1CNA92)	GDLST 587-D B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

BETA 0.000

# EFFECT OF LEADING EDGE CAMBER WITHOUT WING-BODY FILLET CANARD POSITION 8



DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(HCMA10)	○	GDLST 587-D B19W1D-1V7C4
(ACMA19)	△	GDLST 587-D B19W1D-2V7C4
(ACMA20)	◇	GDLST 587-D B19W1D-1V7C4

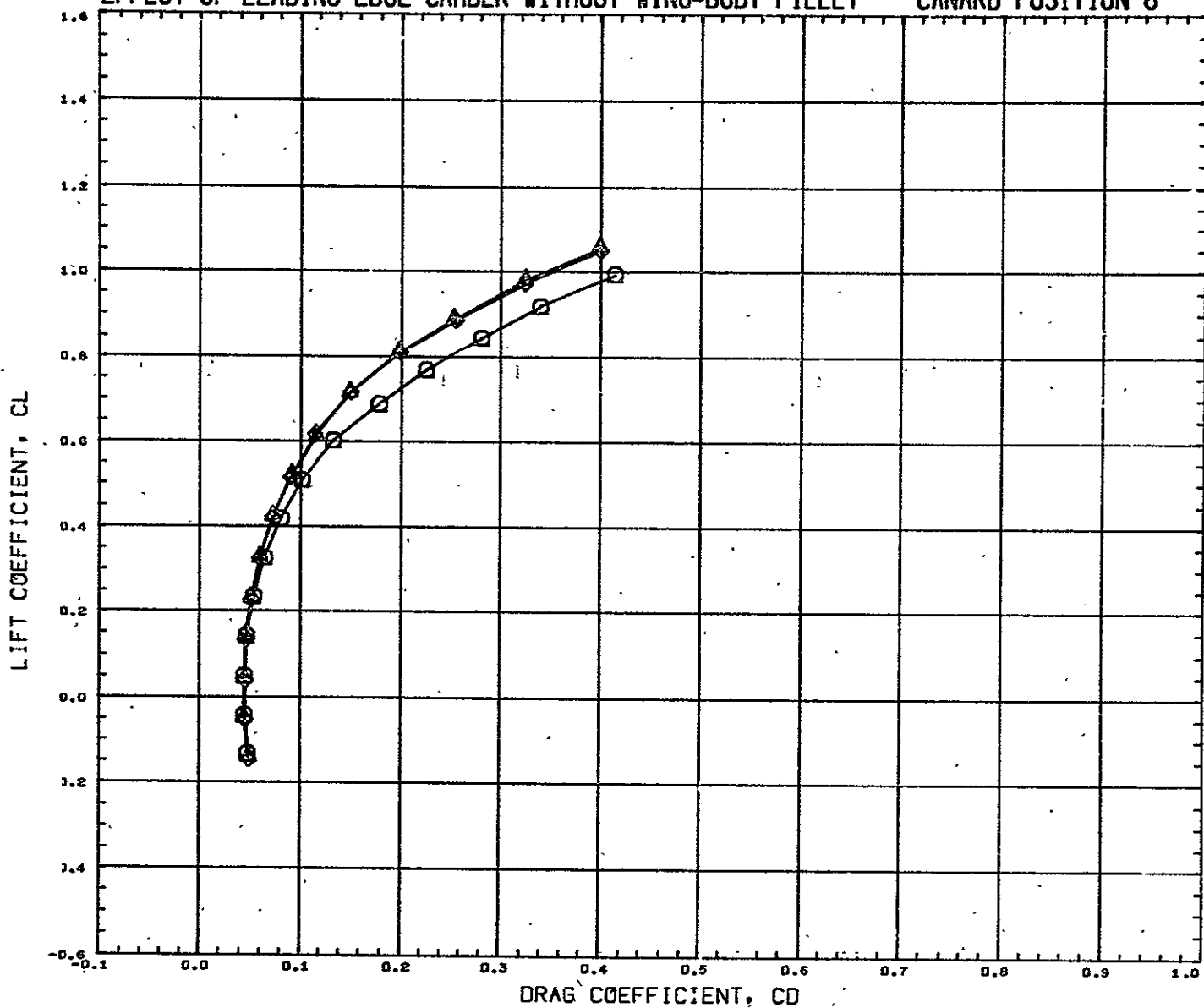
BETA	CANVR	CFLAPR	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN.
0.000	0.000	0.000	60.000	REFL 15.0620 IN.
0.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9390 IN.
				SCALE 0.0175

CANARD 8.000



## EFFECT OF LEADING EDGE CAMBER WITHOUT WING-BODY FILLET

CANARD POSITION 8

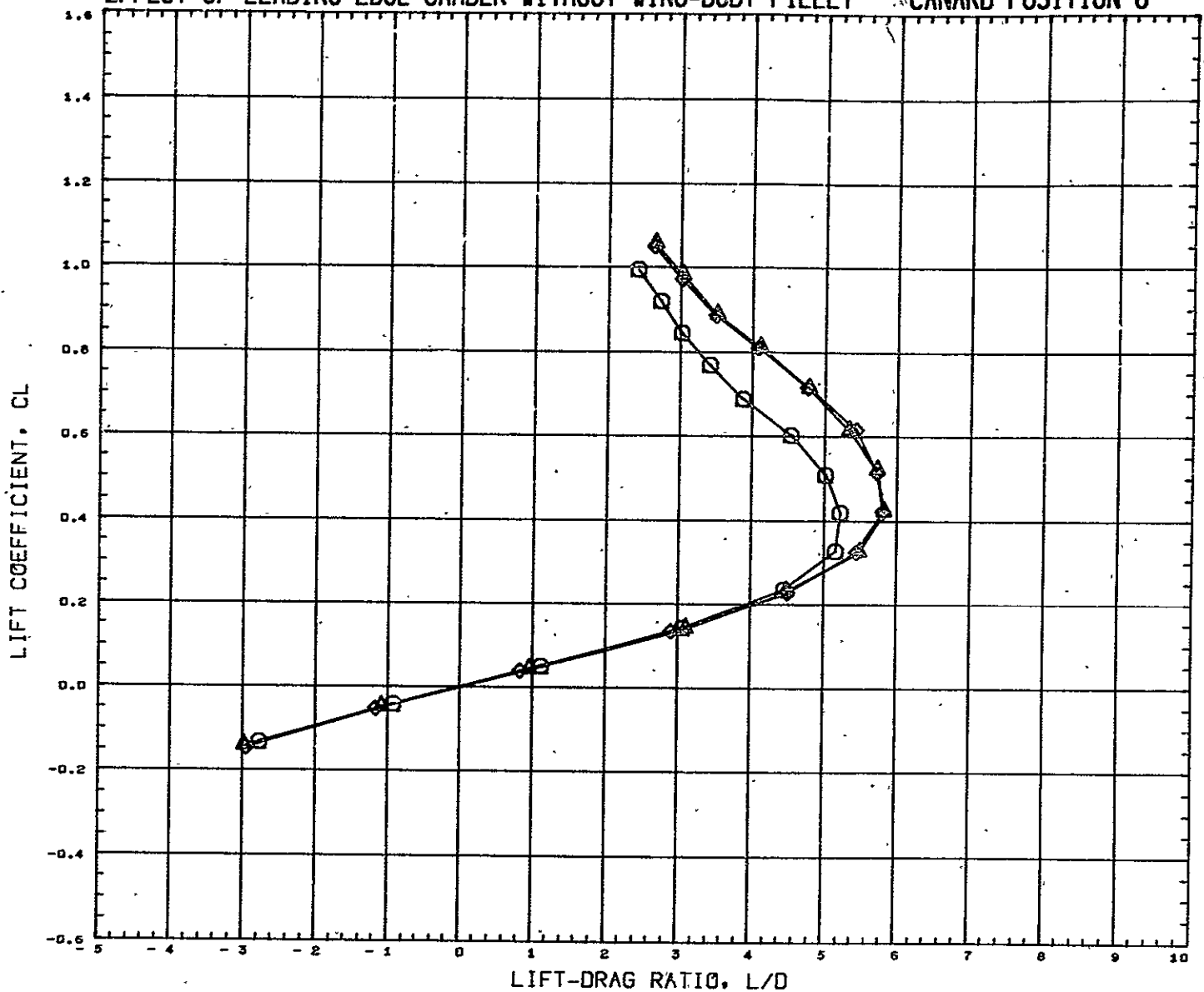


DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(HCHA10)	○	GDLST 587-0 B19W10-1V7C4
(ACHA19)	△	GDLST 587-0 B19W10-2V7C4
(ACHA20)	◇	GDLST 587-0 B19W10V7C4

BETA	CANVT	CFLAPR	Q	REFERENCE INFORMATION
0.000	0.000	0.000	67.000	REFS 343.8704 SQ. IN
0.000	0.000	0.000	60.000	REFL 15.0620 IN.
0.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

CANARD 8.000

# EFFECT OF LEADING EDGE CAMBER WITHOUT WING-BODY FILLET CANARD POSITION 8



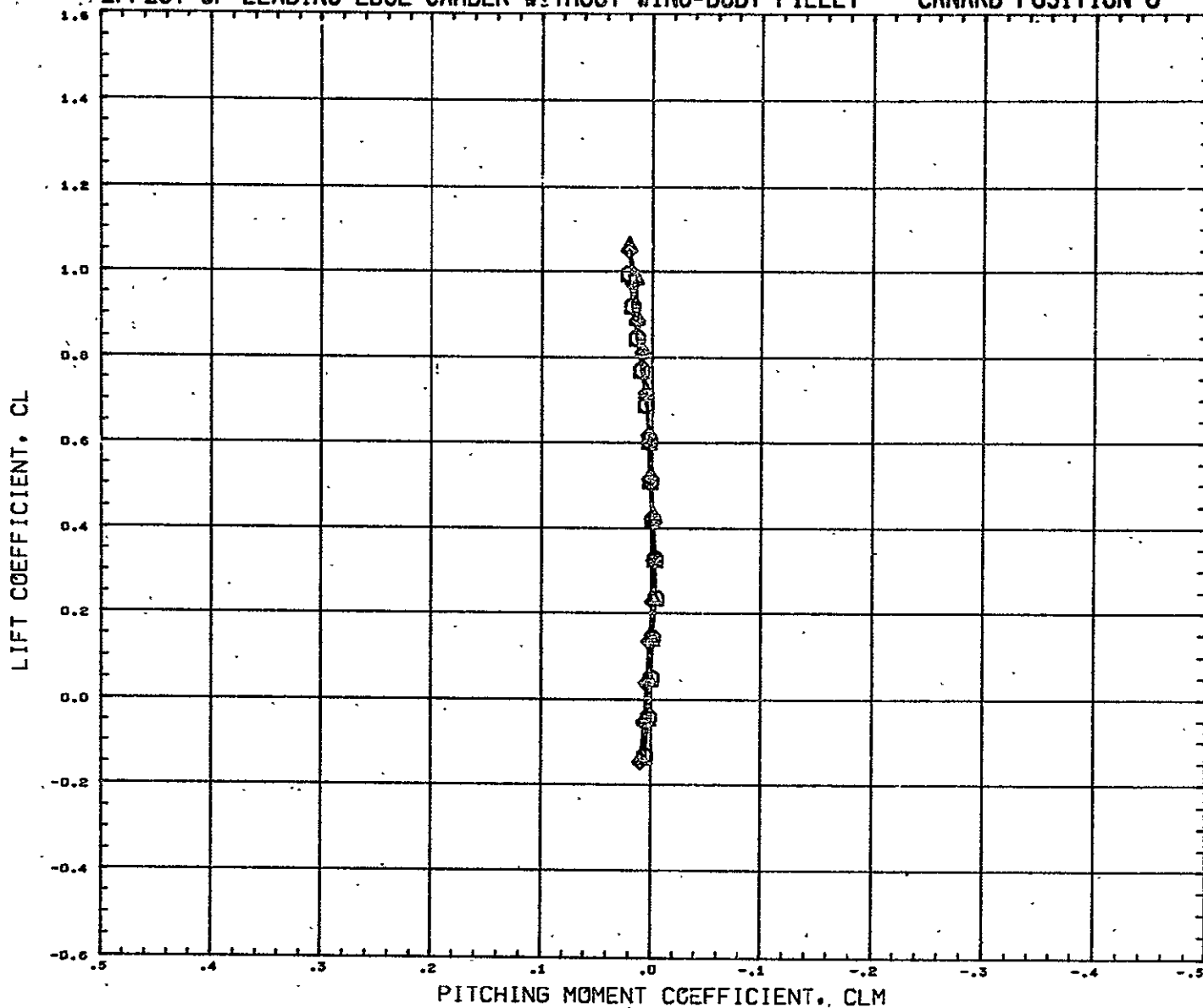
DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(HCA10)	○	GDLST 58T-0	B19W10-1V7C4
(ACA19)	△	GDLST 58T-0	B19W10-2V7C4
(ACA22)	◇	GDLST 50T-0	B19W10V7C4

BETA	CANVT	CFLAPR	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
0.000	0.000	0.000	60.000	REFL 15.0620 IN.
0.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

CANARD 8.000

## EFFECT OF LEADING EDGE CAMBER WITHOUT WING-BODY FILLET

CANARD POSITION 8

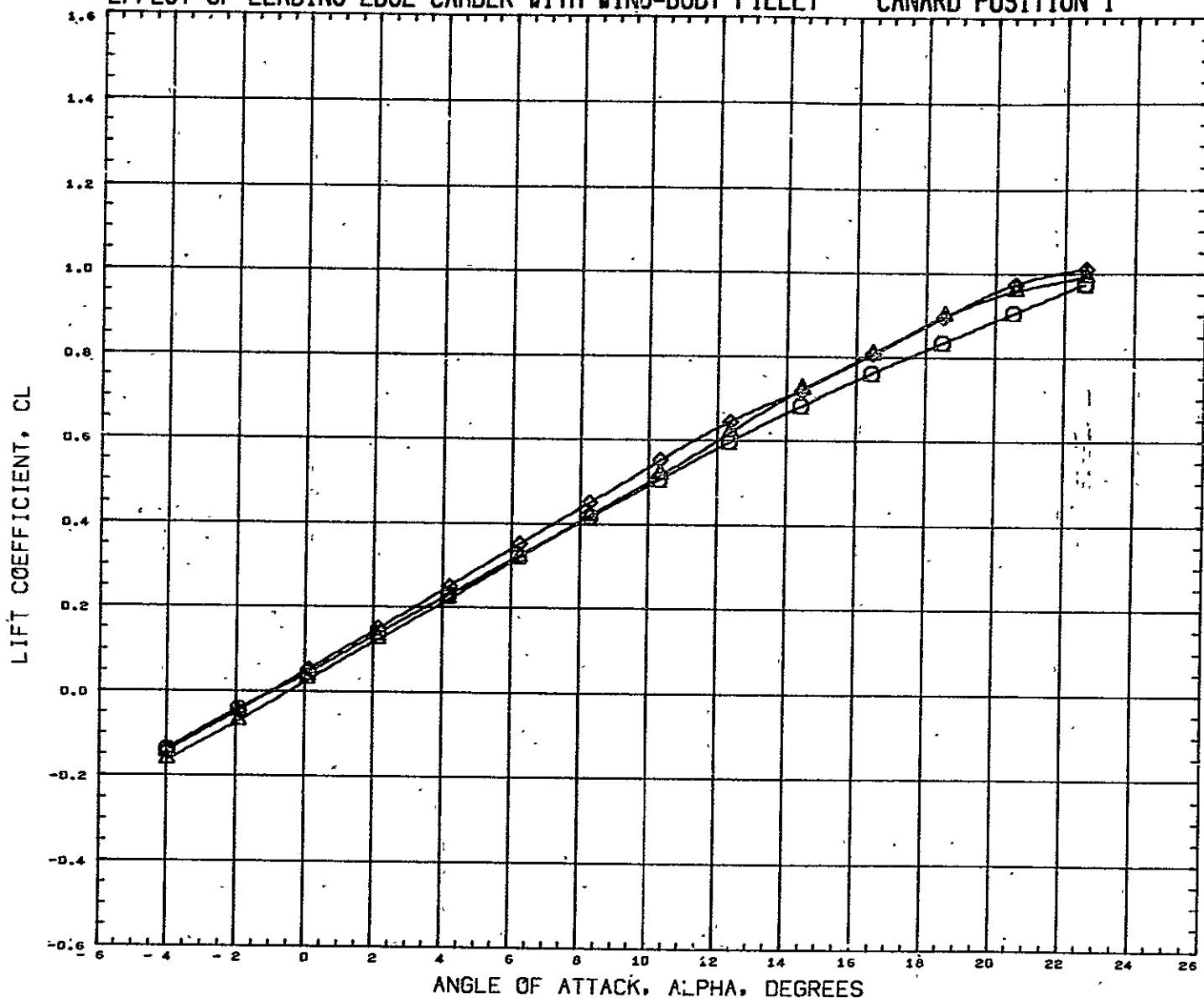


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(MCMA10)	GDLST 587-0 B19W10-1V7C4
(ACMA19)	GDLST 587-0 B19W10-2V7C4
(ACMA20)	GDLST 587-0 B19W10V7C4

BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
0.000	0.000	0.000	11.030	REFS 343.8704 SQ. IN
0.000	0.000	0.000	60.000	REFL 15.0620 IN.
0.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9300 IN.
				SCALE 0.0175

CANARD 8.000

# EFFECT OF LEADING EDGE CAMBER WITH WING-BODY FILLET CANARD POSITION 1



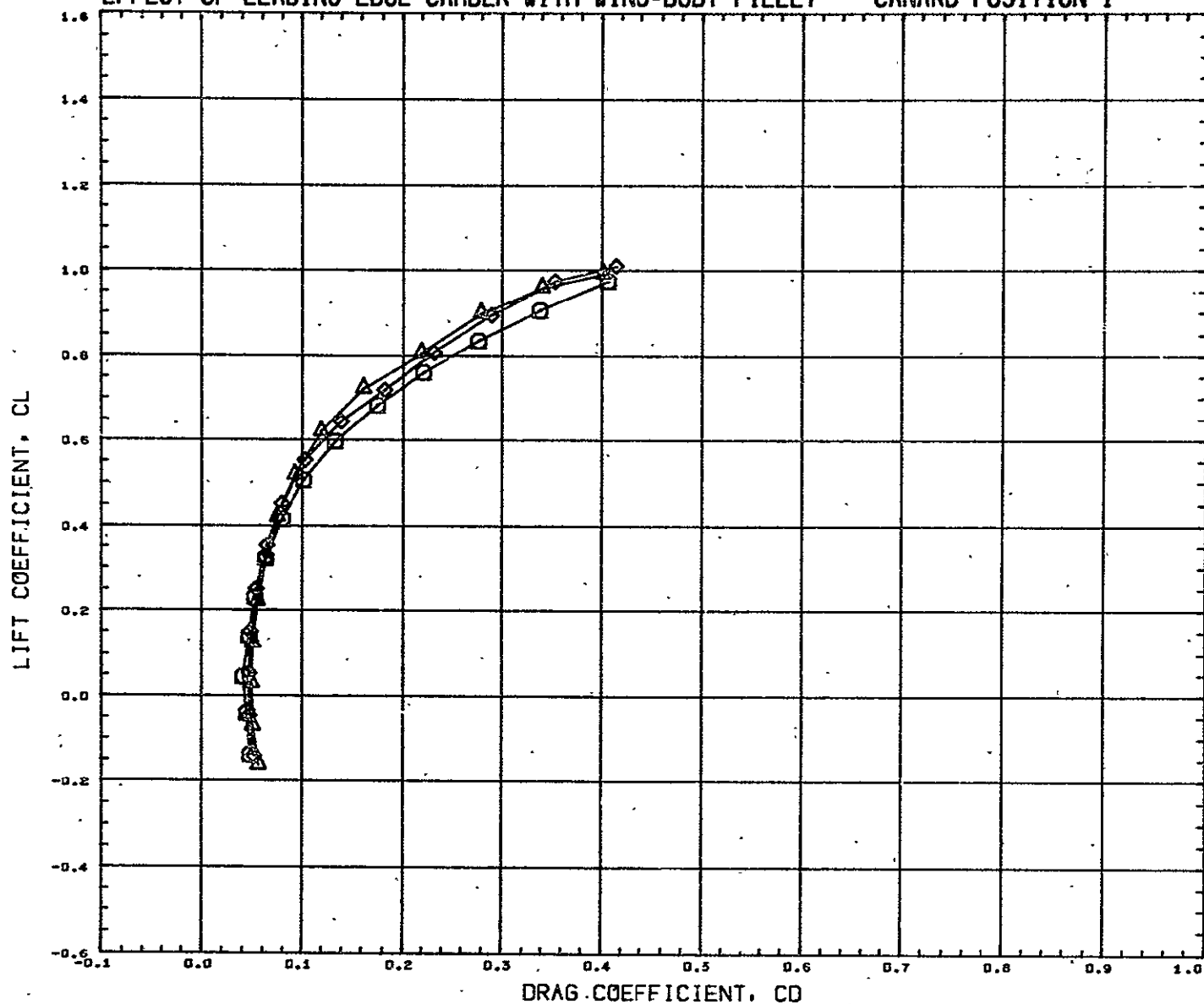
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10)	GDLST 587-0 B19W10-1V7C4
(ICMA76)	GDLST 587-0 B19W10-8V7C4 (POS. 1)
(ACMA80)	GDLST 587-0 B19W10-9V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	67.000
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFS	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

BETA 0.000

# EFFECT OF LEADING EDGE CAMBER WITH WING-BODY FILLET CANARD POSITION 1

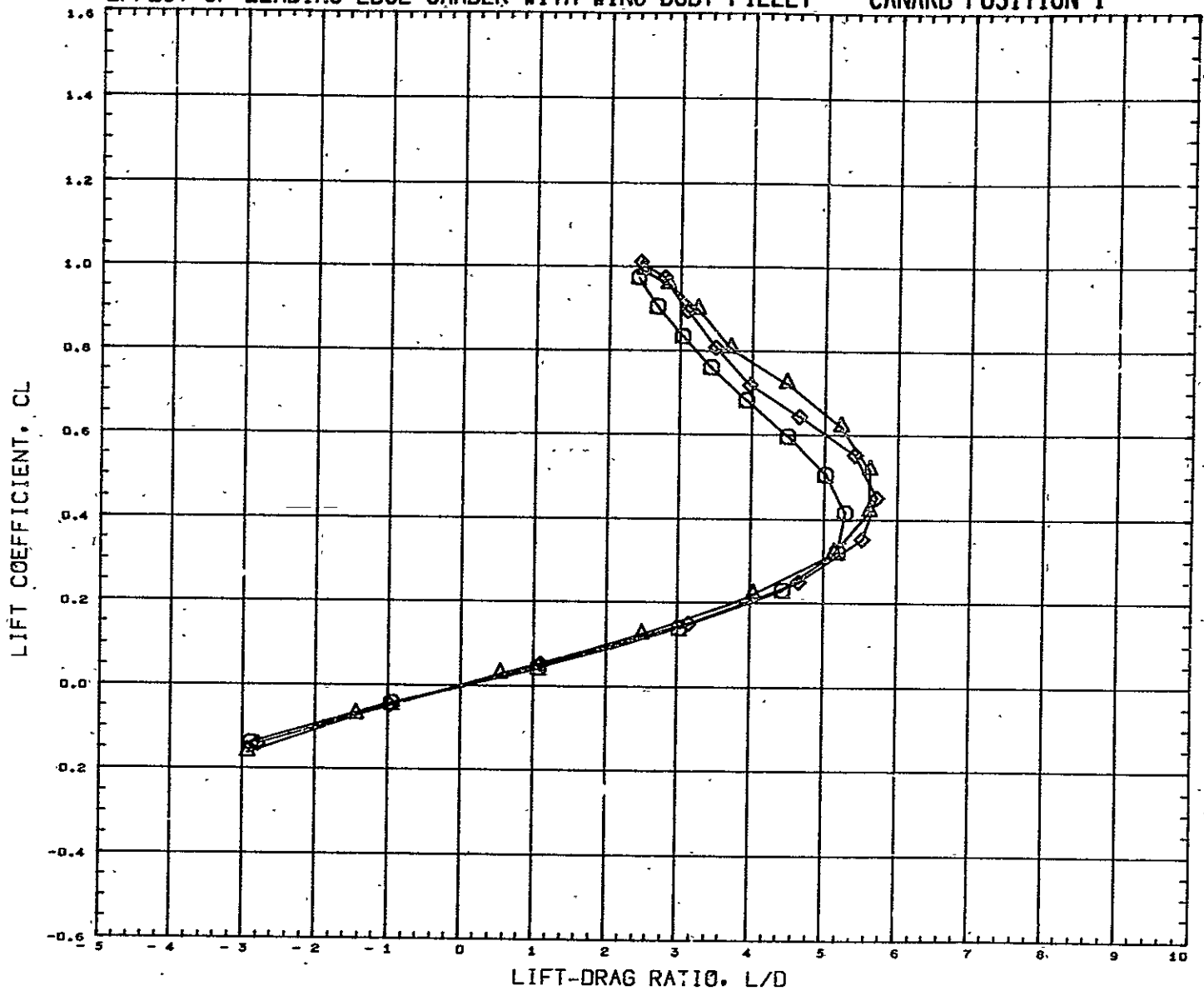


DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (BCMA10)  $\circ$  GDLST 587-D B19W10-1V7C4  
 (ICHA76)  $\triangle$  GDLST 587-D B19W10-8V7C4 (POS. 1)  
 (ACHAB0)  $\diamond$  GDLST 587-D B19W10-9V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	1.7500	REFS 343.8704 SQ. IN
1.000	0.000	0.000	60.300	REFL 15.0620 IN.
1.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRF 33.4360 IN.
				YMRF 0.0000 IN.
				ZMRF 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF LEADING EDGE CAMBER WITH WING-BODY FILLET CANARD POSITION 1

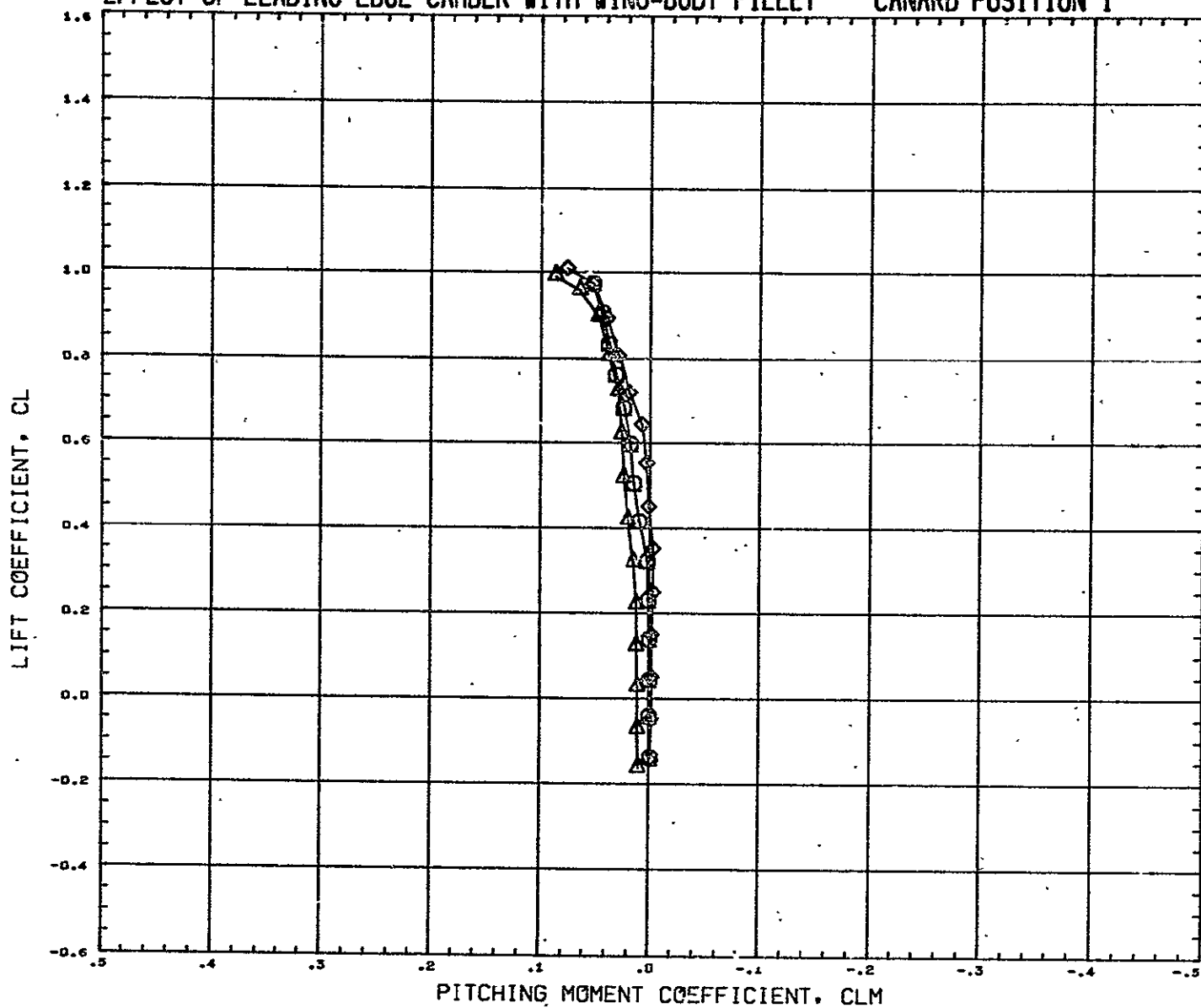


DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(BCMA10)	GDLST 587-0	B19W10-1V7C4
(ICMA76)	GDLST 587-0	B19W10-8V7C4 (POS. 1)
(ACMA80)	GDLST 587-0	B19W10-9V7C4 (POS. 1)

BETA 0.000

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
1.000	0.000	0.000	60.000	REFL 15.0620 IN.
1.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

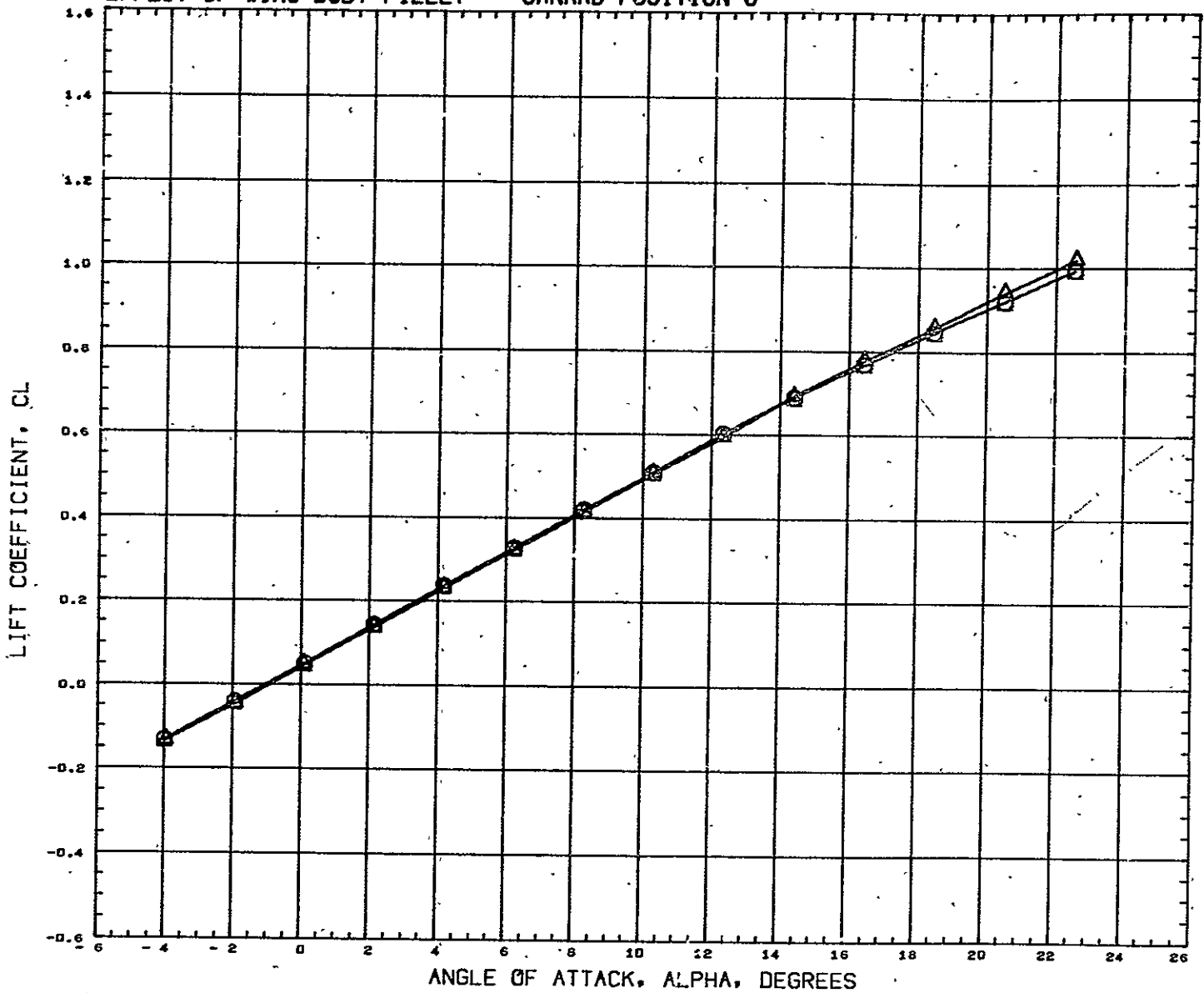
# EFFECT OF LEADING EDGE CAMBER WITH WING-BODY FILLET CANARD POSITION 1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
{BCNA10}	GDLST 587-D B19W10-1V7C4	1.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
{ICNA76}	GDLST 587-D B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.100	REFL	15.0620	IN.
{ACNA80}	GDLST 587-D B19W10-9V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

BETA 0.000

# EFFECT OF WING-BODY FILLET CANARD POSITION $\delta$



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(OCHA10)  $\bigcirc$  GDLST 587-0 B19W10-1V7C4  
(ICHA65)  $\triangle$  GDLST 587-0 B19W10-3V7C4 (POS. 8)

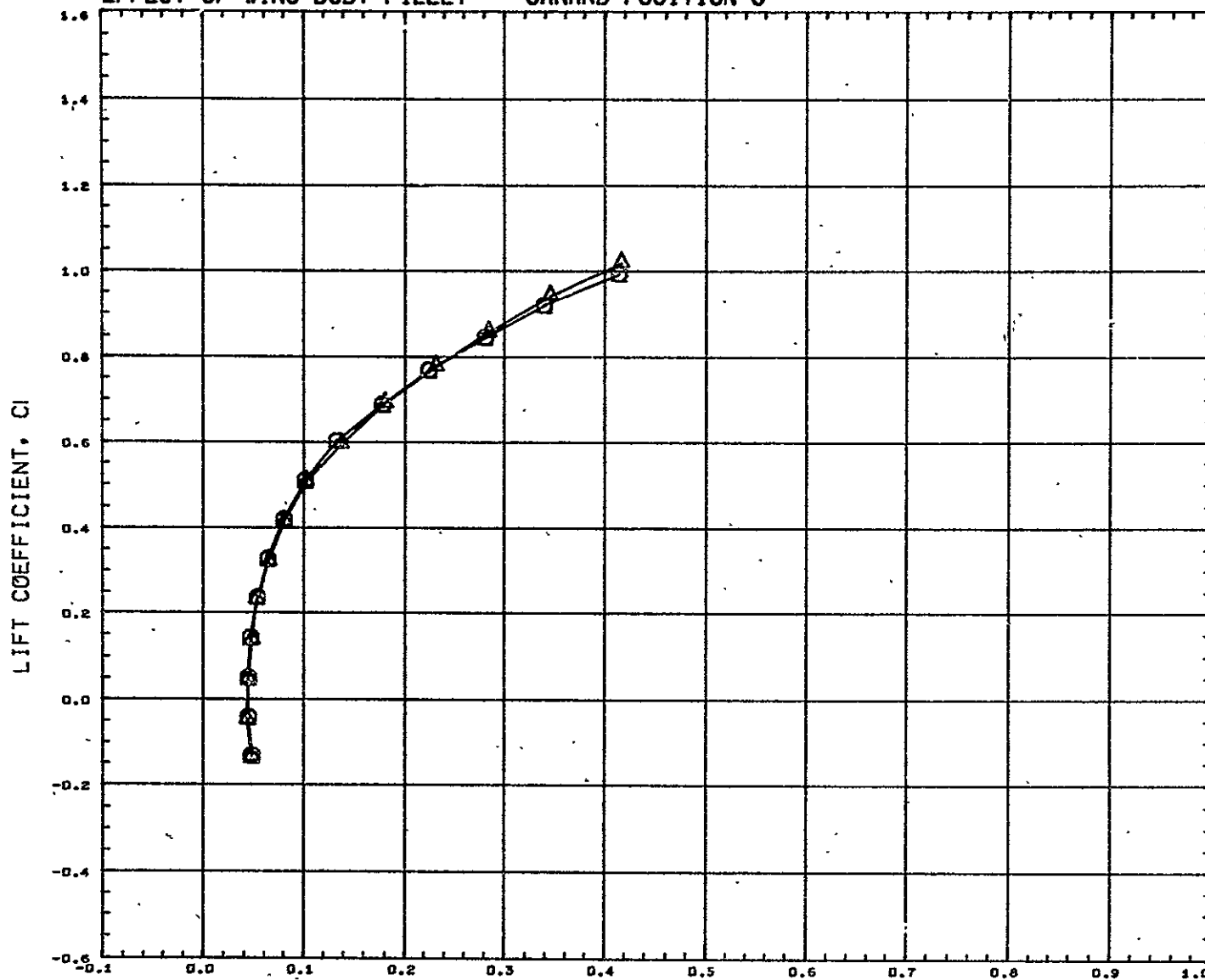
CANARD CANVTP CFLAPR  $\delta$   
8.000 0.000 0.000 00.000  
8.000 0.000 0.000 00.000

REFERENCE INFORMATION  
REFS 343.8704 SQ. IN  
REFL 15.0620 IN.  
REFB 30.4400 IN.  
XMRP 33.4360 IN.  
YMRP 0.0000 IN.  
ZMRP 3.9380 IN.  
SCALE 0.0175

BETA 0.000



# EFFECT OF WING-BODY FILLET CANARD POSITION 8



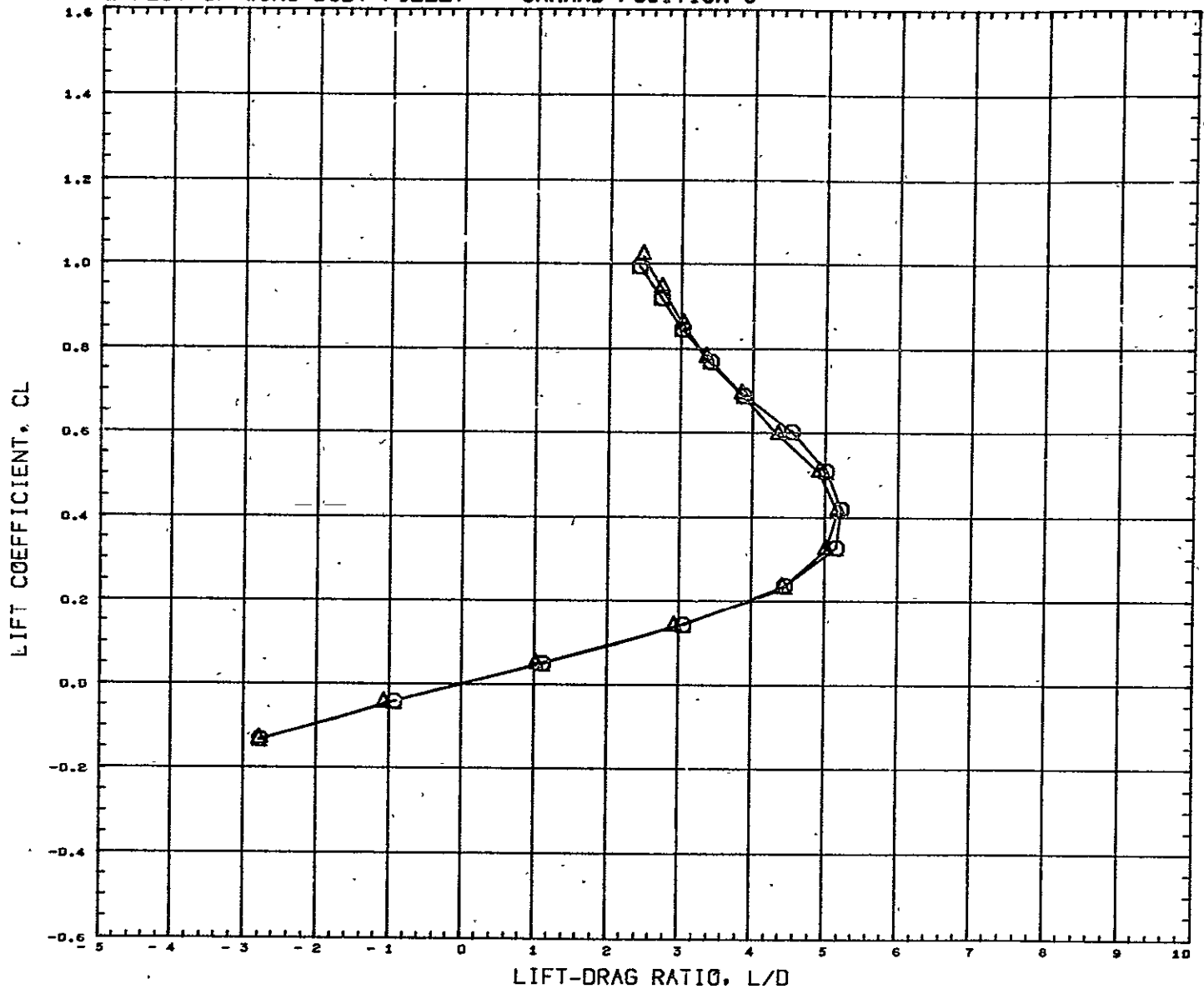
DRAG COEFFICIENT,  $C_D$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (OCHA10)  $\square$  GDLST 587-0 B19W10-1V7C4  
 (2CHA65)  $\triangle$  GDLST 587-0 B19W10-3V7C4 (POS. 8)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
8.000	0.000	0.000	51.30	REFS 343.8704 SQ. IN
8.000	0.000	0.000	60.400	REFL 15.0620 IN.
				REFB 30.4400 IN.
				XNRP 33.4360 IN.
				YNRP 0.0000 IN.
				ZNRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF WING-BODY FILLET CANARD POSITION 8

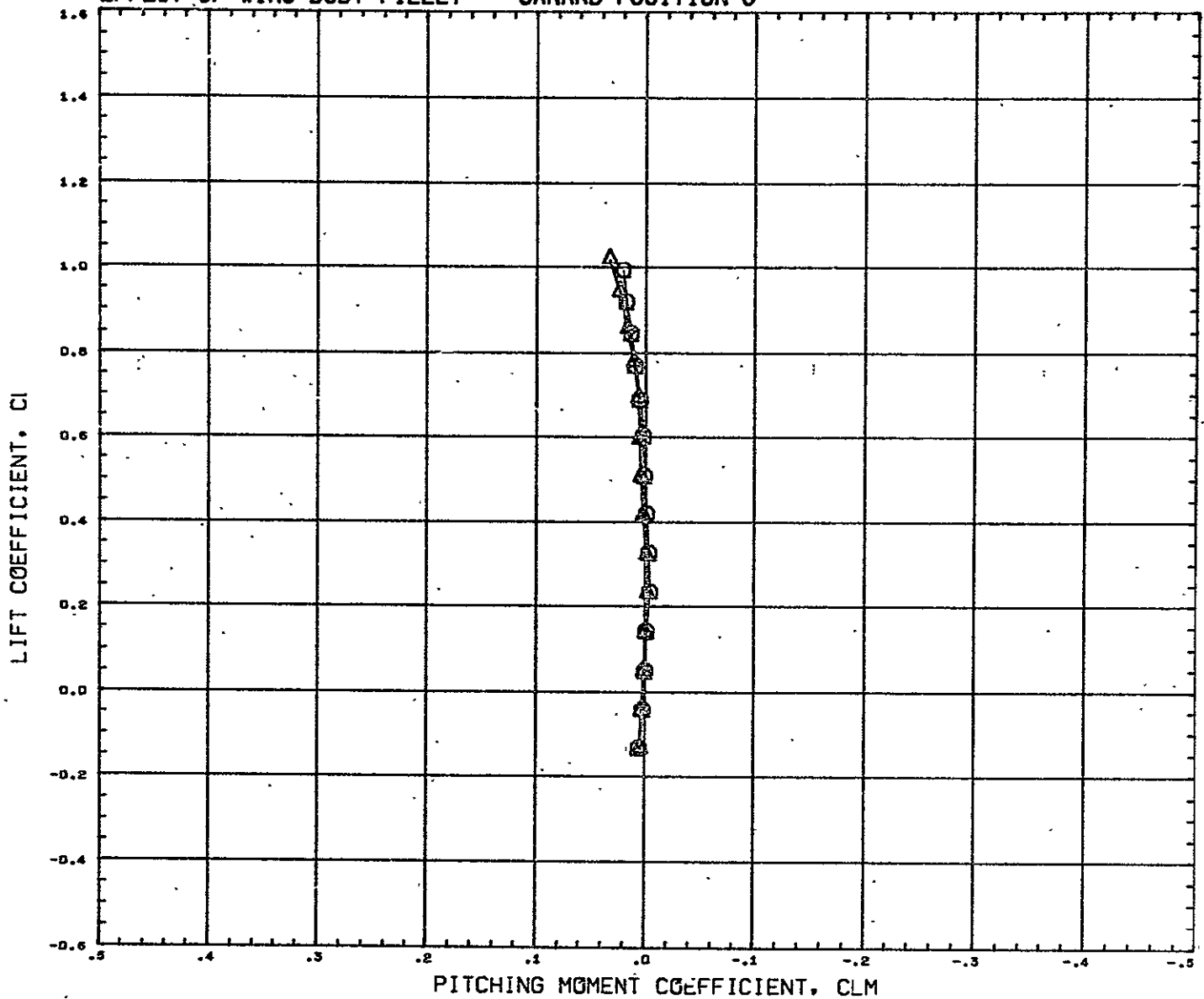


DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (OCMA10)  $\Delta$  GDLST 587-D B19W10-1V7C4  
 (ICMA65)  $\Delta$  GDLST 587-D B19W10-3V7C4 (POS. 8)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
8.000	0.000	0.000	17.500	REFS 343.8704 SQ. IN
8.000	0.000	0.000	60.400	REFL 15.0620 IN.
				REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF WING-BODY FILLET CANARD POSITION 8



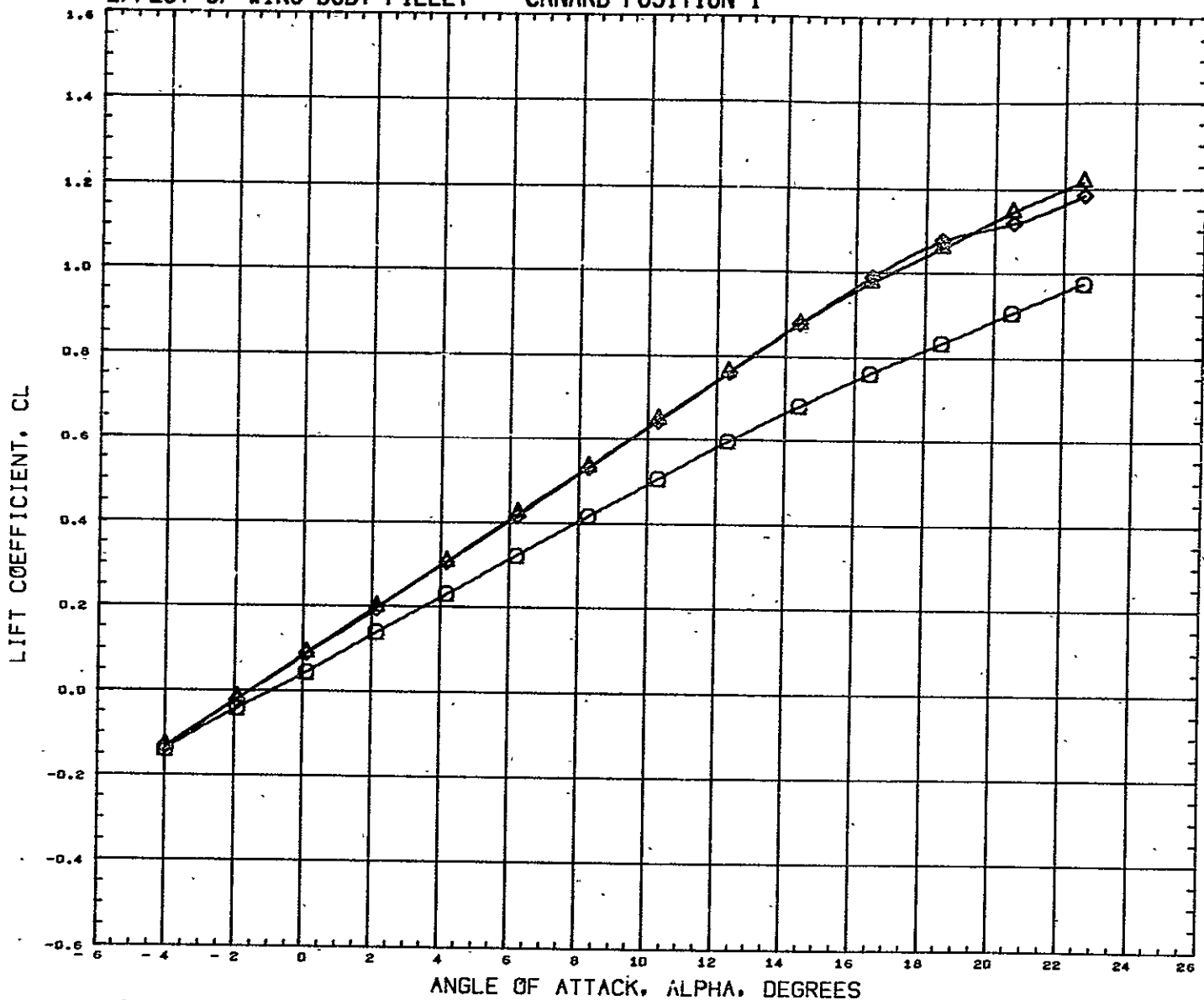
DATA SET SYMBOL - CONFIGURATION DESCRIPTION

(OCMA10) Q GDLST 587-D B19M1D-1V7C4  
(ICHA65) A GDLST 587-D B19M1D-3V7C4 (POS. 8)

CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
8.000	0.000	0.000	~ 50	REFS 343.0704 SQ. IN
8.000	0.000	0.000	60.400	REFL 15.0620 IN.
				REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF WING-BODY FILLET CANARD POSITION 1

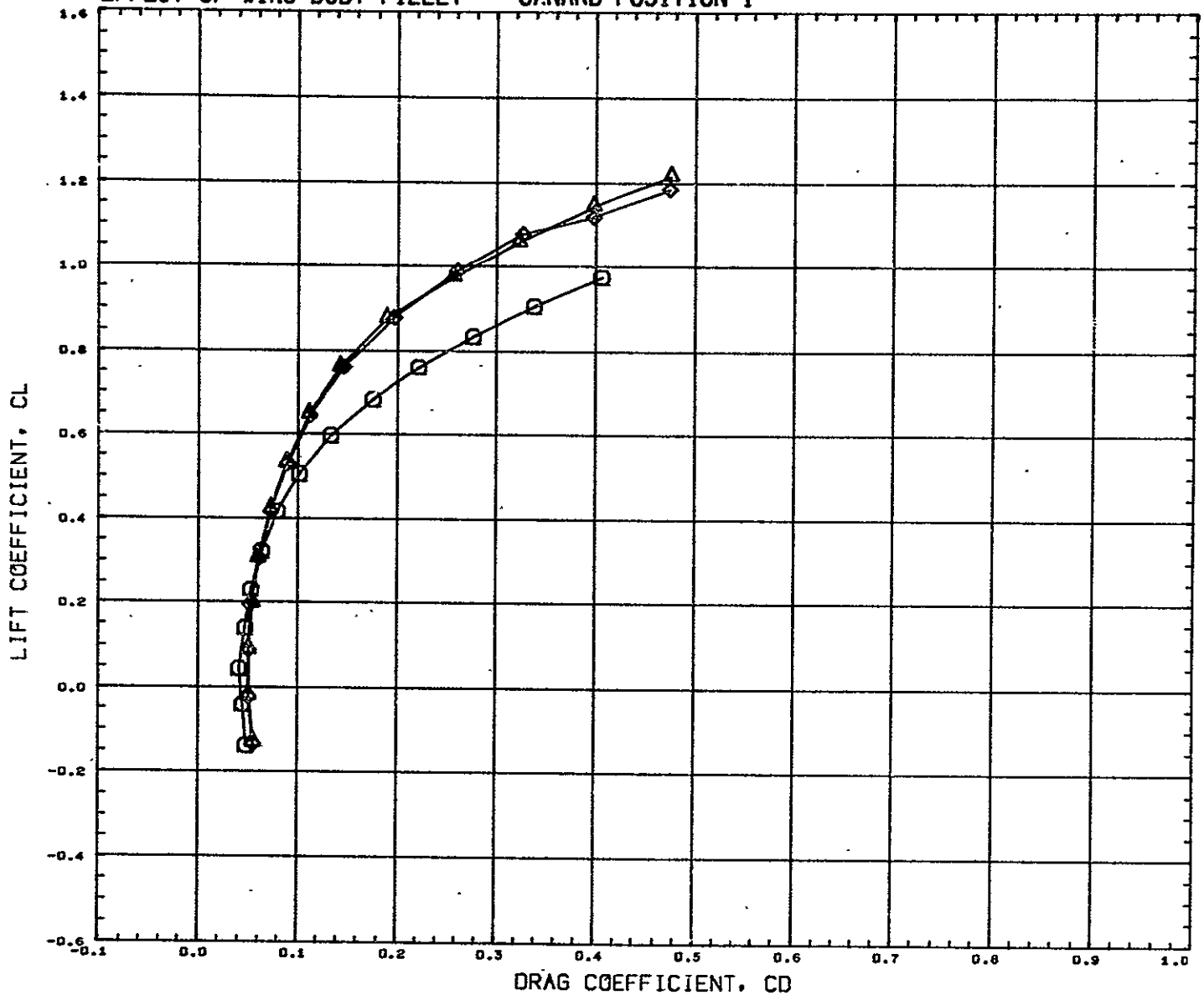


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10)	GDLST 587-D B19W10-1V7C4
(ICMA73)	GDLST 587-D B19W10-5V7C4 (POS. 1)
(ICMA74)	GDLST 587-D B19W10-6V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
1.000	0.000	0.000	60.000	REFL 15.0620 IN.
1.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0275

BETA 0.000

# EFFECT OF WING-BODY FILLET CANARD POSITION 1

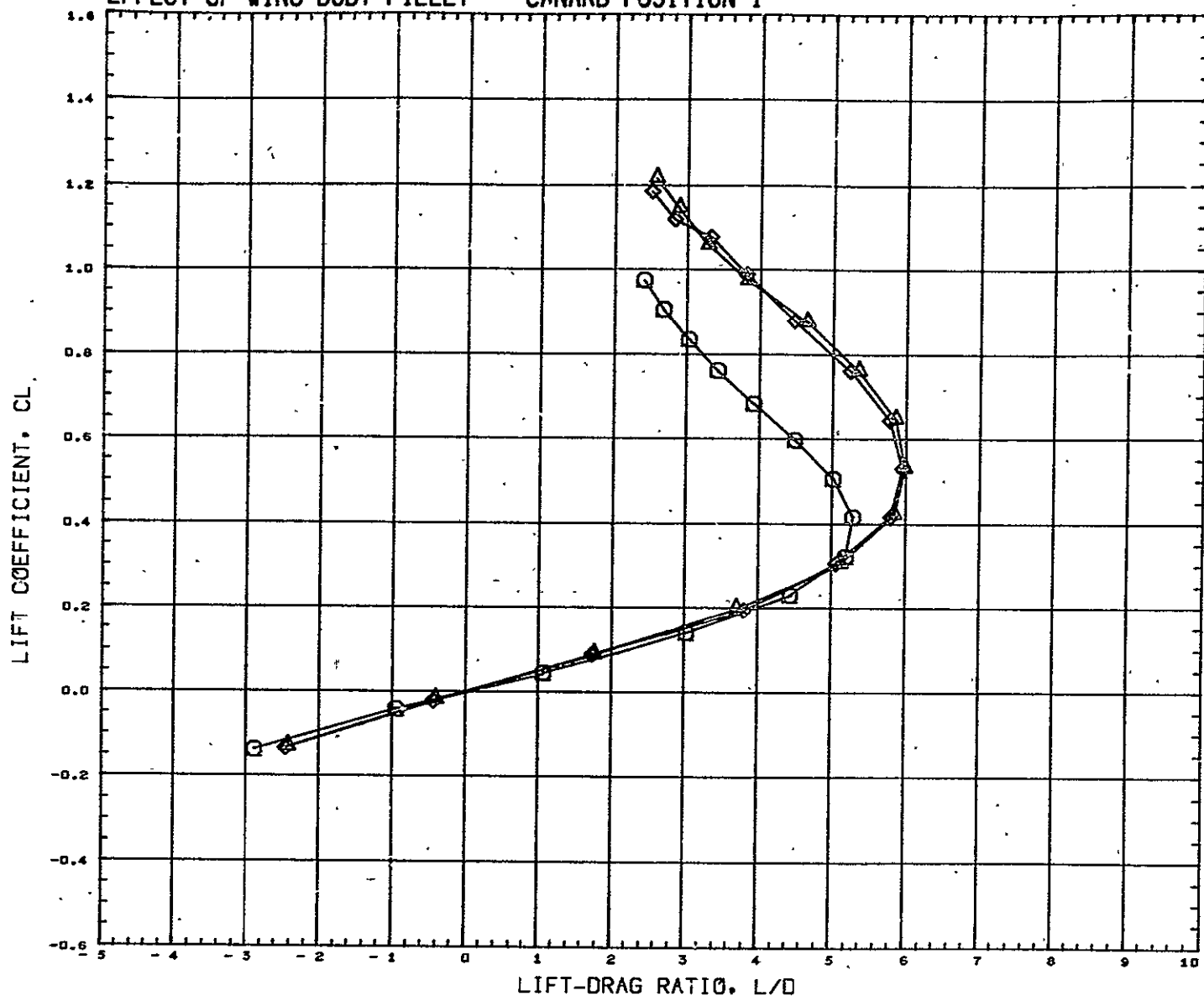


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10) $\square$	GDLST 587-0 B19W10-1V7C4
(ICMA73) $\triangle$	GDLST 587-0 B19W10-5V7C4 (POS. 1)
(ICMA74) $\diamond$	GDLST 587-0 B19W10-6V7C4 (POS. 1)

BETA 0.009

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	~ 25.0	REFS 343.8704 SQ. IN
1.000	0.000	0.000	60.000	REFL 15.0620 IN.
1.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

# EFFECT OF WING-BODY FILLET CANARD POSITION 1

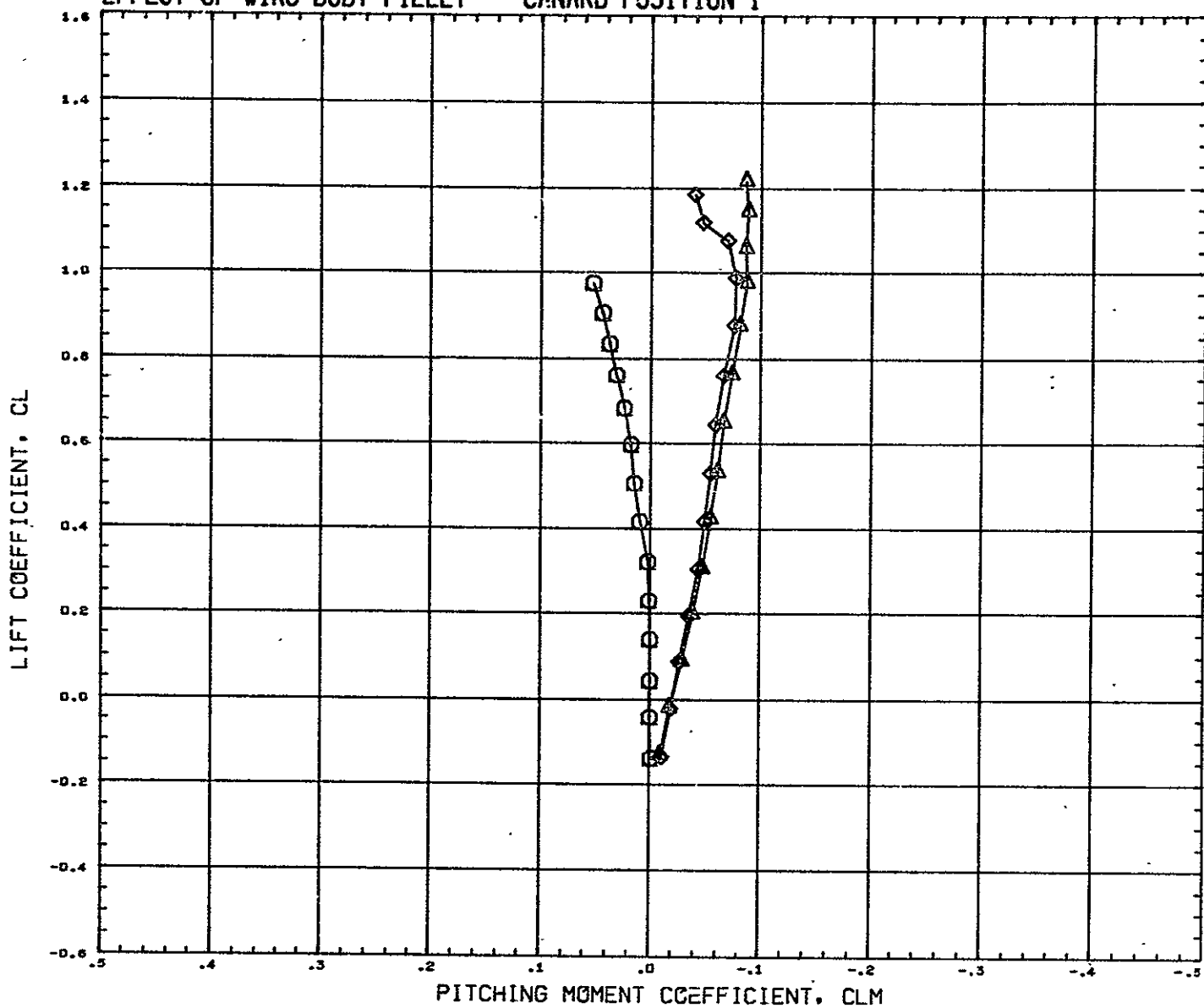


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10)	GDLST 587-D B19W10-1V7C4
(ICMA73)	GDLST 587-D B19W10-5V7C4 (POS. 1)
(ICMA74)	GDLST 587-D B19W10-6V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
1.000	0.000	0.000	60.000	REFL 15.0620 IN.
1.000	0.000	0.000	60.000	REFB 30.4400 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF WING-BODY FILLET CANARD POSITION 1



DATA SET SYMBOL CONFIGURATION DESCRIPTION

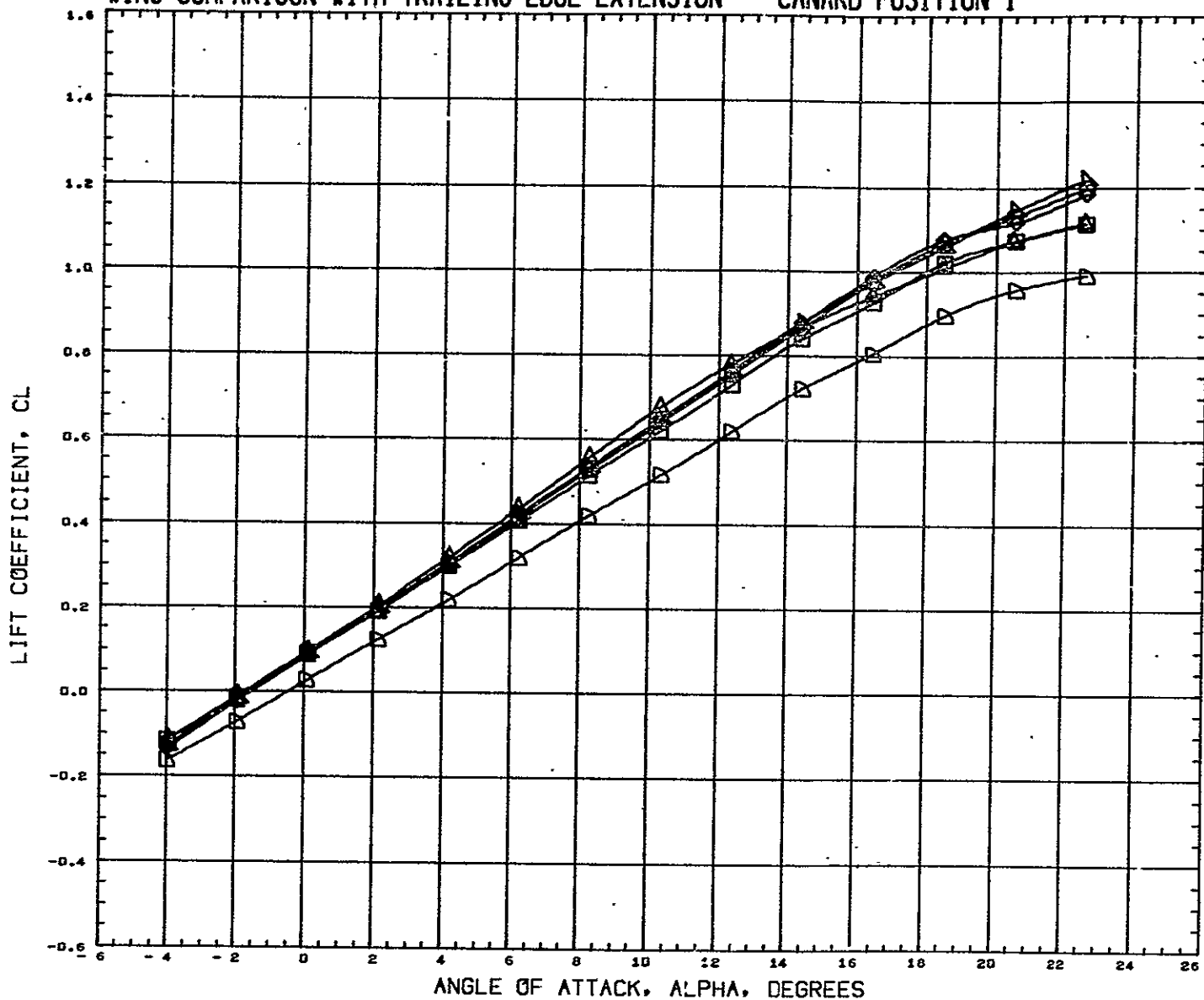
(BCMA10) GDLST 587-0 B19W10-1V7C4  
 (ICMA73) GDLST 587-0 B19W10-5V7C4 (POS. 1)  
 (ICMA74) GDLST 587-0 B19W10-6V7C4 (POS. 1)

CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 60.000  
 1.000 0.000 0.000 60.000  
 1.000 0.000 0.000 60.000

REFERENCE INFORMATION  
 REFS 343.8704 SQ. IN  
 REFL 15.0620 IN.  
 REFB 30.4400 IN.  
 XMRP 33.4360 IN.  
 YMRP 0.0000 IN.  
 ZMRP 3.9380 IN.  
 SCALE 0.0175

BETA 0.000

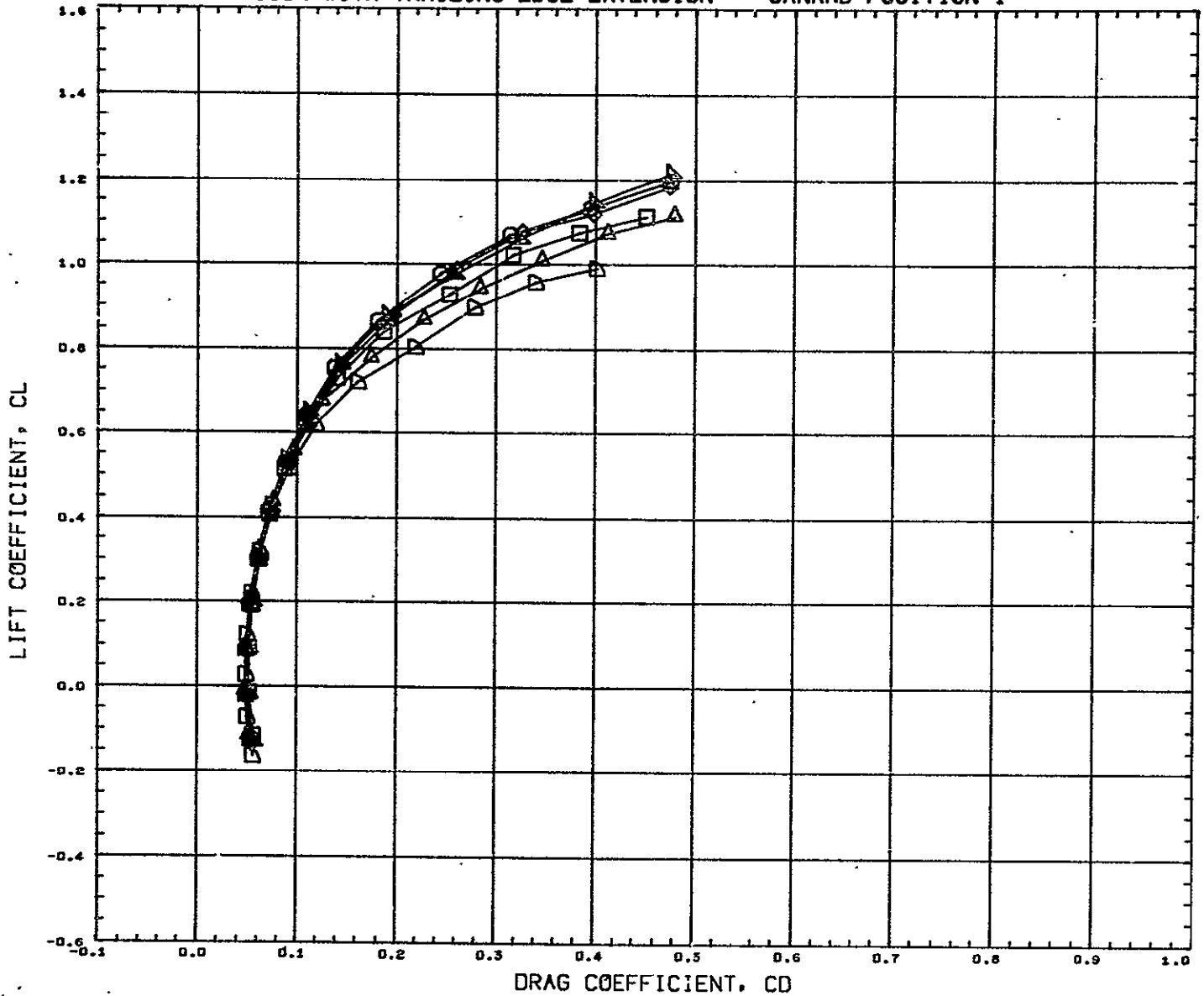
# WING COMPARISON WITH TRAILING EDGE EXTENSION CANARD POSITION 1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ACHA92)	GDLST 587-D B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(ICHA91)	GDLST 587-D B19W10-12V7C4 (POS. 1)	1.000	0.000	0.000	60.100	REFL	15.0620	IN.
(ICHA74)	GDLST 587-D B19W10-6V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ICHA75)	GDLST 587-D B19W10-7V7C4 (POS. 1)	1.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(ICHA73)	GDLST 587-D B19W10-5V7C4 (POS. 1)	1.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(ICHA76)	GDLST 587-D B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
BETA	0.000					SCALE	0.0175	

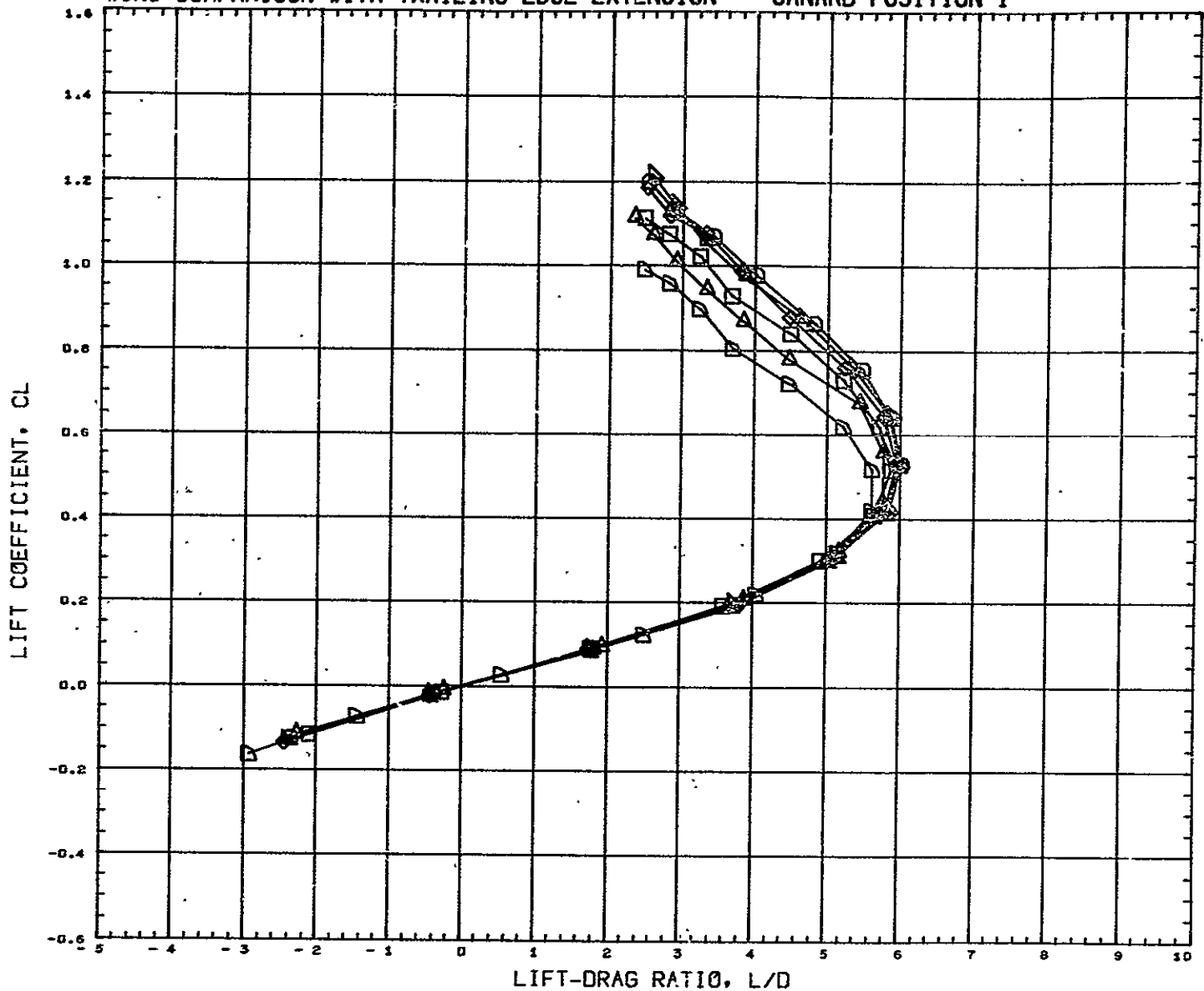


# WING COMPARISON WITH TRAILING EDGE EXTENSION CANARD POSITION 1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTP	CFLAPR	Q	REFERENCE INFORMATION		
(ACHA92)	GDLST 587-D B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	57.000	REFS	343.8704	sq. IN
(ICMA91)	GDLST 587-D B19W10-12V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ICMA74)	GDLST 587-D B19W10-6V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ICMA75)	GDLST 587-D B19W10-7V7C4 (POS. 1)	1.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(ICMA73)	GDLST 587-D B19W10-5V7C4 (POS. 1)	1.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(ICMA76)	GDLST 587-D B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
BETA	0.000					SCALE	0.0175	

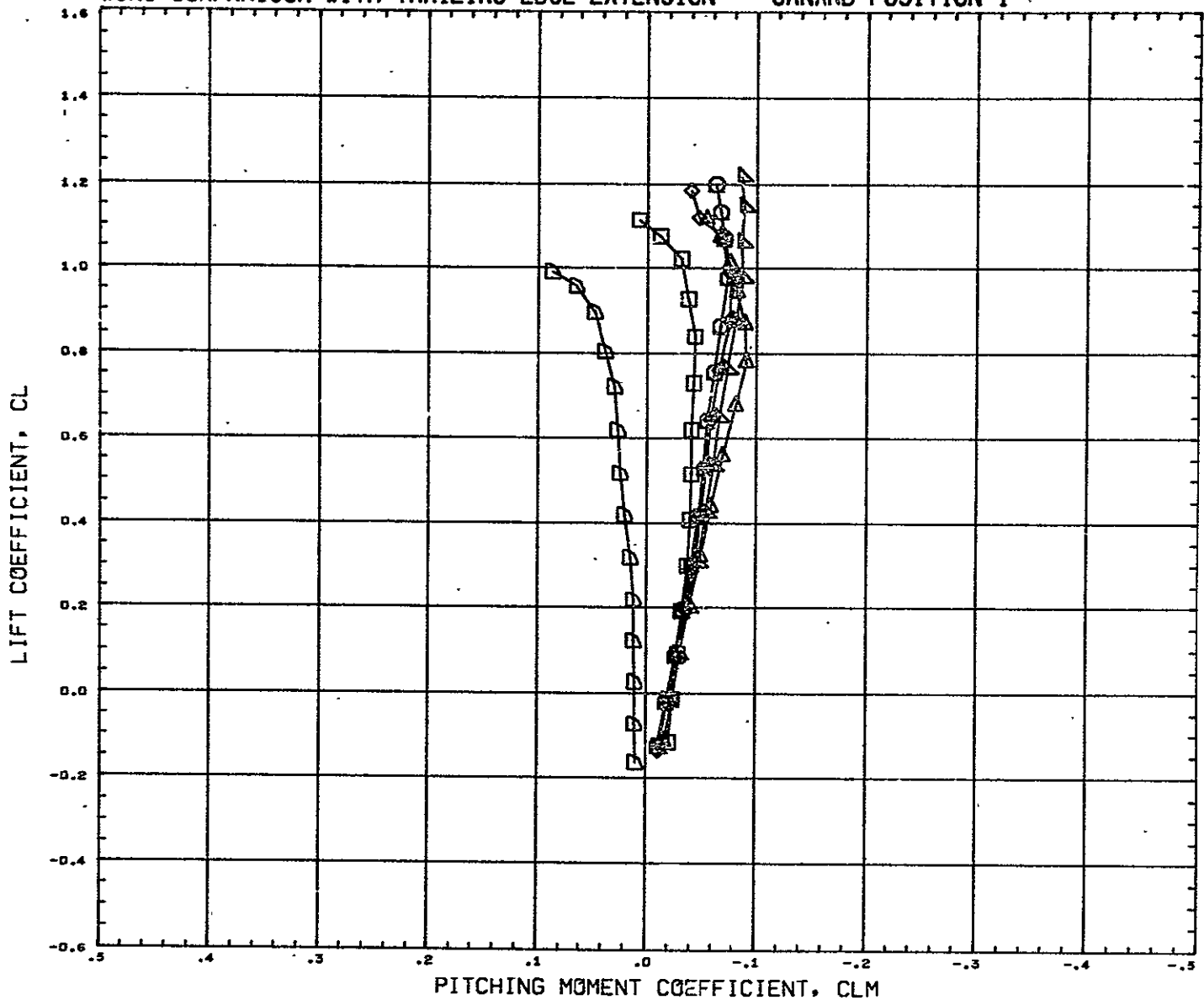
# WING COMPARISON WITH TRAILING EDGE EXTENSION CANARD POSITION 1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION		
(ACMA92)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(ICMA91)	GDLST 587-0 B19W10-12V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ICMA74)	GDLST 587-0 B19W10-6V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ICMA75)	GDLST 587-0 B19W10-7V7C4 (POS. 1)	1.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(ICMA73)	GDLST 587-0 B19W10-5V7C4 (POS. 1)	1.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(ICMA76)	GDLST 587-0 B19W10-2V7C4 (POS. 1)	1.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
	BETA 0.000					SCALE	0.0175	

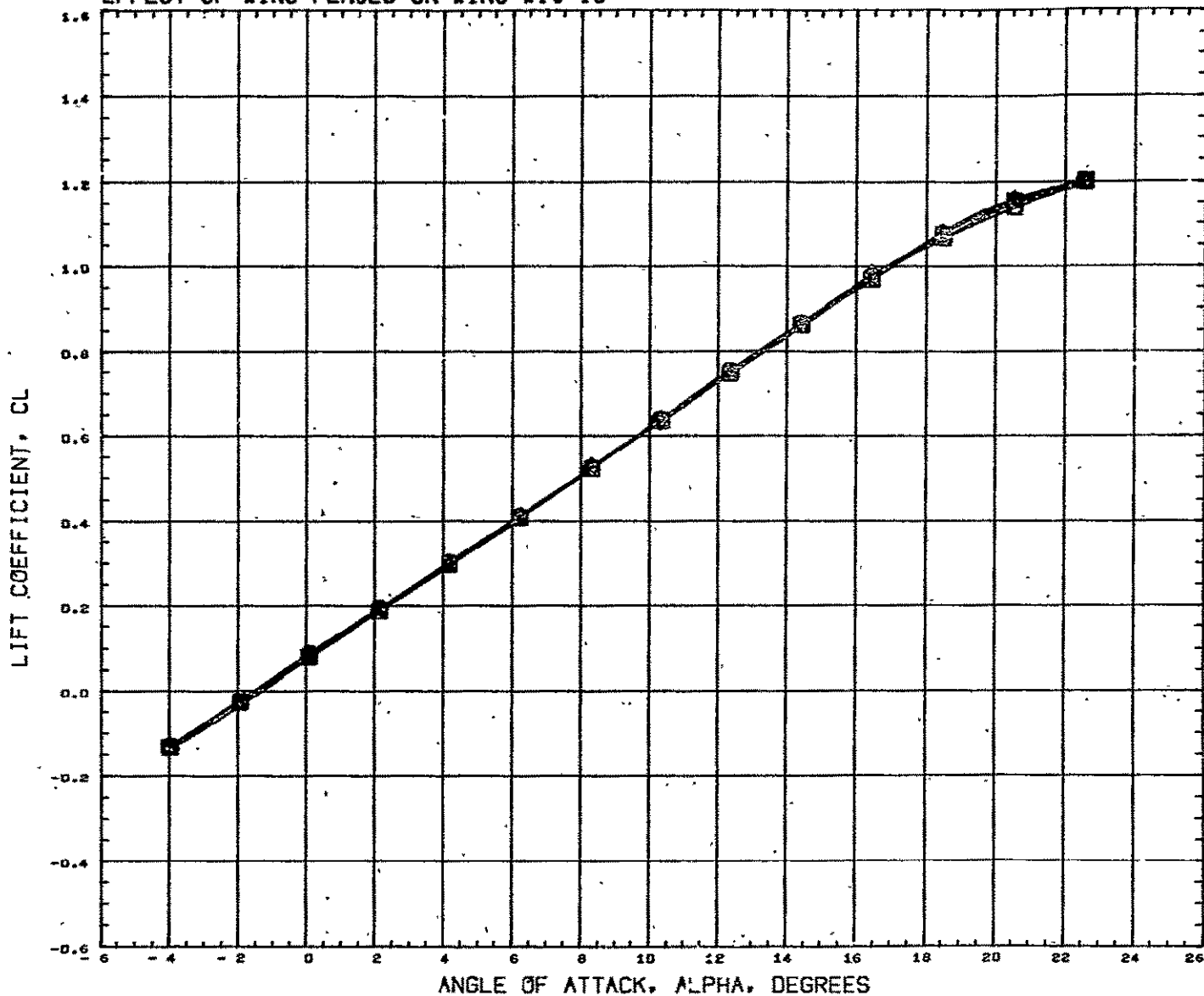
# WING COMPARISON WITH TRAILING EDGE EXTENSION

CANARD POSITION 1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ACHA92)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(ICHA91)	GDLST 587-0 B19W10-12V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL 15.0620 IN.
(ICHA74)	GDLST 587-0 B19W10-6V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB 30.4400 IN.
(ICHA75)	GDLST 587-0 B19W10-7V7C4 (POS. 1)	1.000	0.000	0.000	60.000	XMRP 33.4360 IN.
(ICHA73)	GDLST 587-0 B19W10-5V7C4 (POS. 1)	1.000	0.000	0.000	60.000	YMRP 0.0000 IN.
(ICHA76)	GDLST 587-0 B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.000	ZMRP 3.9380 IN.
BETA	0.000					SCALE 0.0175

# EFFECT OF WING FENCES ON WING W10-13



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(DCMA21)	□	GDLST 587-D	B19W10-13V7C4
(ACMA26)	△	GDLST 587-D	B19W10-13V7F1C4 (FOS. 1)
(ACMA27)	◇	GDLST 587-D	B19W10-13V7F2C4 (FOS. 1)
(ACMA28)	□	GDLST 587-D	B19W10-13V7F3C4 (FOS. 1)

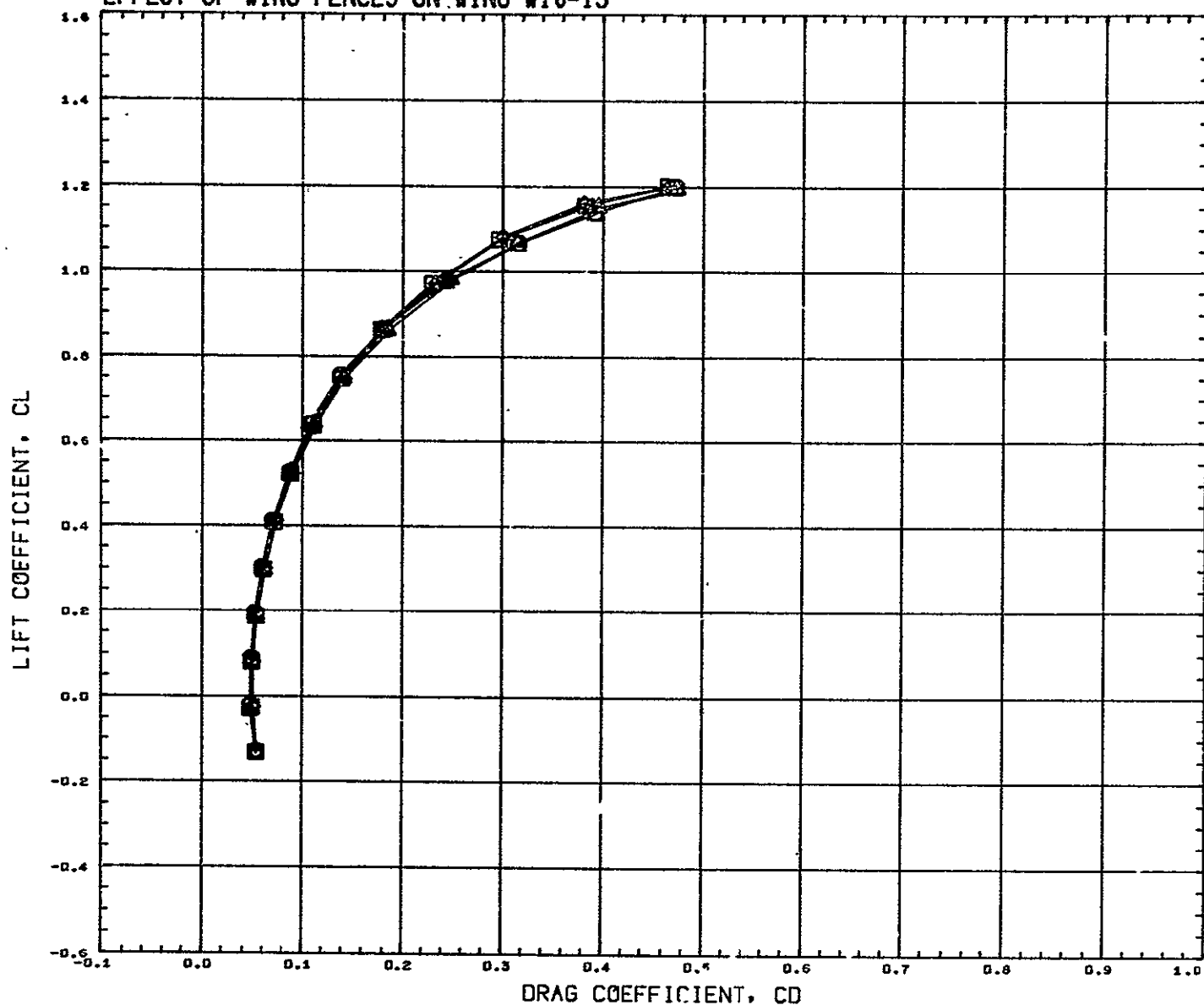
BETA	CANVTR	CFLAPR	Q
0.000	0.000	0.000	60.000
0.000	0.000	0.000	60.000
0.000	0.000	0.000	60.000
0.000	0.000	0.000	60.000

REFERENCE INFORMATION

REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XHRP	33.4360	IN.
YHRP	0.0000	IN.
ZHRP	3.9380	IN.
SCALE	0.0175	

CANARD 1.000

# EFFECT OF WING FENCES ON WING W10-13

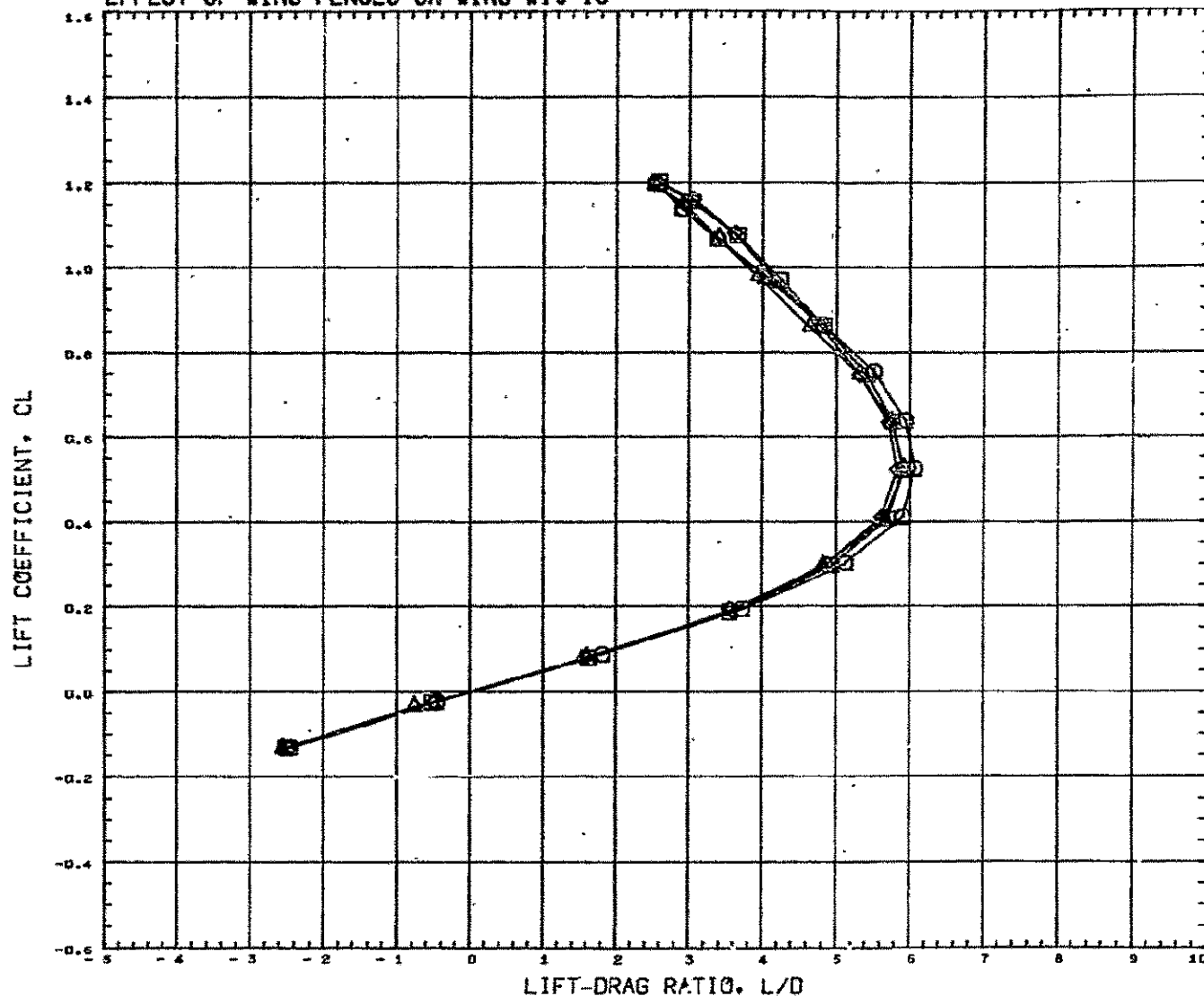


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(DCHA21)	GDLST 587-0 B19W10-13V7C4
(ACHA26)	GDLST 587-0 B19W10-13V7F1C4 (POS. 1)
(ACHA27)	GDLST 587-0 B19W10-13V7F2C4 (POS. 1)
(ACHA28)	GDLST 587-0 B19W10-13V7F3C4 (POS. 1)

BETA	CANVTX	CFLAPR	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN.
0.000	0.000	0.000	60.000	REFL 15.0620 IN.
0.000	0.000	0.000	60.000	REFB 30.4400 IN.
0.000	0.000	0.000	60.000	XNRP 33.4360 IN.
				YHRP 0.0000 IN.
				ZHRP 3.9380 IN.
				SCALE 0.0177

CANARD 1.000

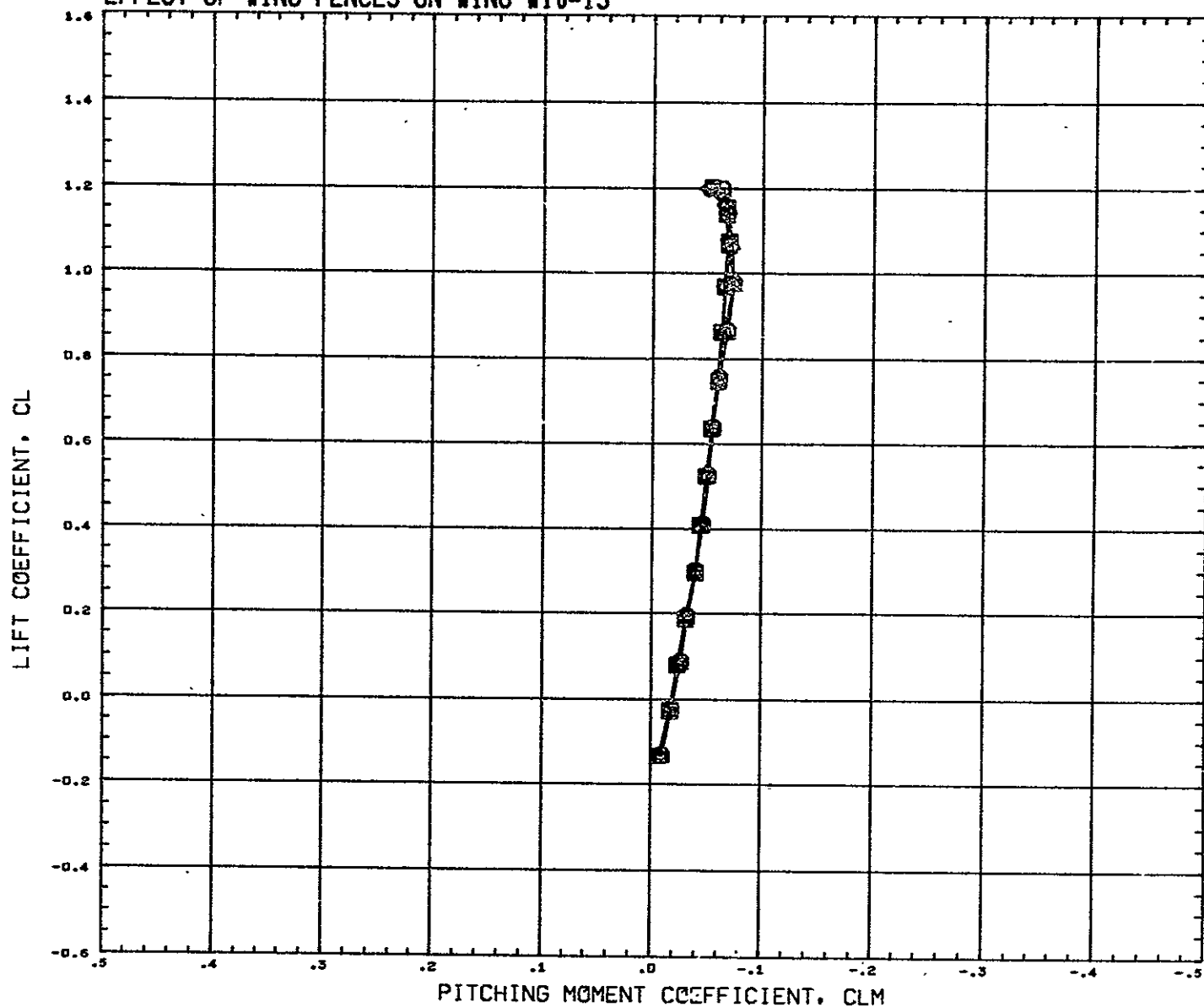
# EFFECT OF WING FENCES ON WING W10-13



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DELTA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCMA21)	GDLST 587-D B19W10-13V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	58. IN.
(ACHA26)	GDLST 587-D B19W10-13V7F1C4 (POS. 1)	0.000	0.000	0.000	60.000	REFL	15.0620	IN.
(ACHA27)	GDLST 587-D B19W10-13V7F2C4 (POS. 1)	0.000	0.000	0.000	60.000	REFB	30.4400	IN.
(ACHA28)	GDLST 587-D B19W10-13V7F3C4 (POS. 1)	0.000	0.000	0.000	60.000	XHRP	33.4360	IN.
						YHRP	0.0000	IN.
						ZHRP	3.9380	IN.
						SCALE	0.0272	

CANARD 1.000

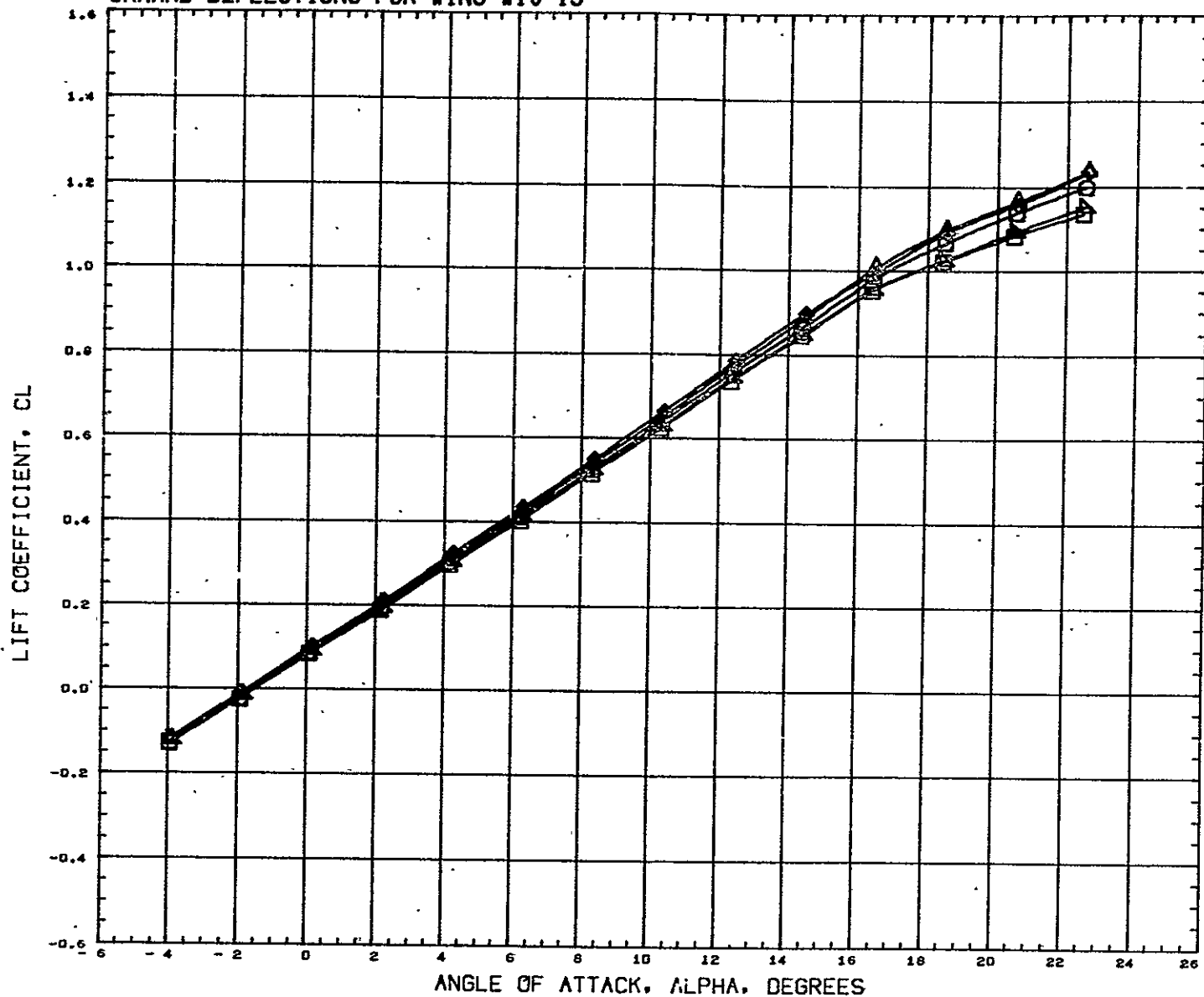
# EFFECT OF WING FENCES ON WING W10-13



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVT	CFLAPR	Q	REFERENCE INFORMATION		
(DCMA21)	GDLST 587-D B19W10-13V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	sq. in
(ACMA26)	GDLST 587-D B19W10-13V7F1C4 (POS. 1)	0.000	0.000	0.000	60.000	REFL	15.0620	in.
(ACMA27)	GDLST 587-D B19W10-13V7F2C4 (POS. 1)	0.000	0.000	0.000	60.000	REFB	30.4400	in.
(ACMA28)	GDLST 587-D B19W10-13V7F3C4 (POS. 1)	0.000	0.000	0.000	60.000	XMRP	33.4360	in.
						YMRP	0.0000	in.
						ZMRP	3.9360	in.
						SCALE	0.0175	

CANARD 1.000

# CANARD DEFLECTIONS FOR WING W10-13

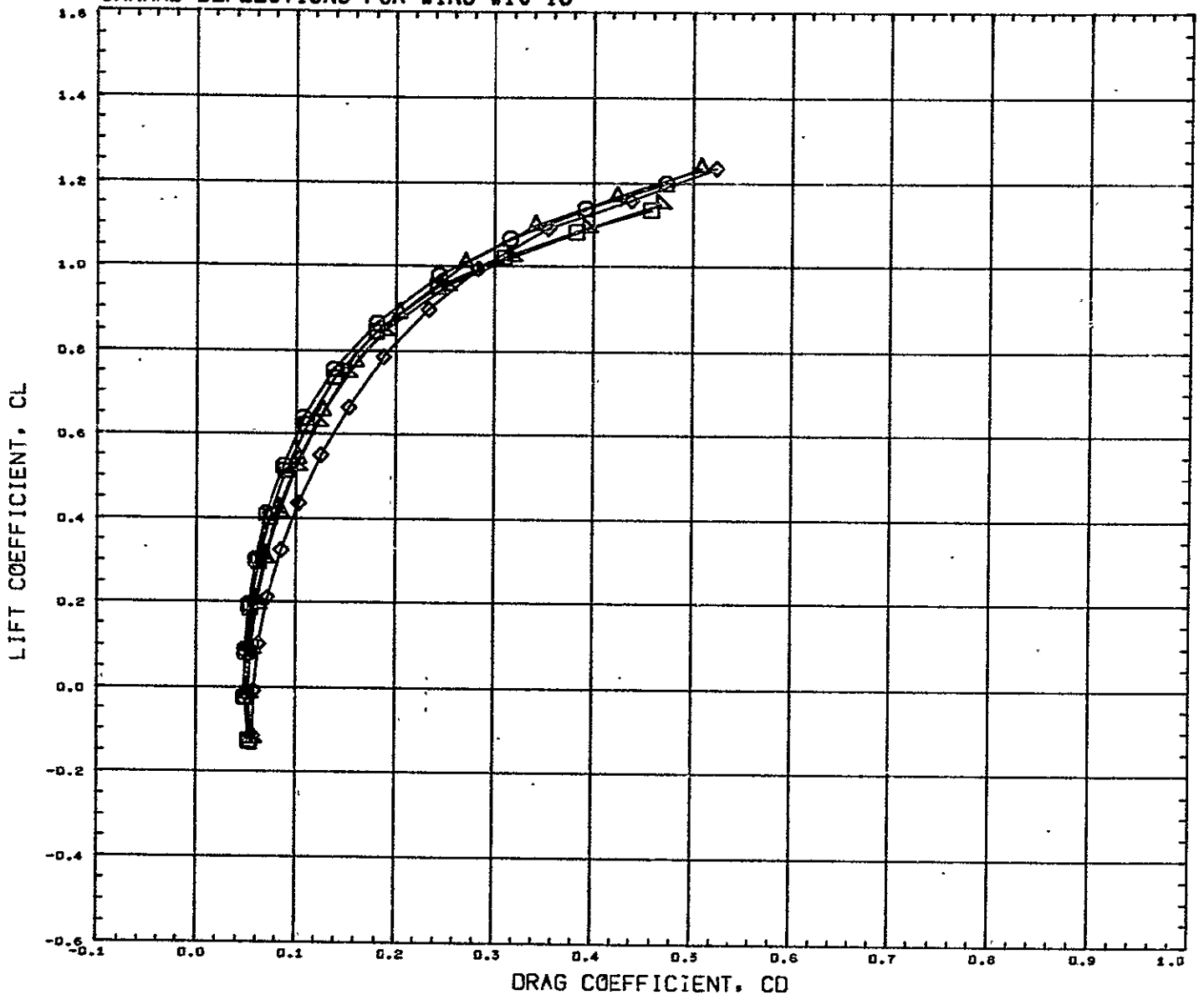


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION	
(DCMA21)	GDLST 587-D B19W10-13V7C4	0.000	0.000	0.000	7.530	REFS	343.8704 SQ. IN
(ACMA24)	GDLST 587-D B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	REFL	15.0620 IN.
(ACMA25)	GDLST 587-D B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	REFB	30.4400 IN.
(ACMA22)	GDLST 587-D B19W10-13V7C7 (POS. 1)	0.000	10.000	0.000	60.000	XMRP	33.4360 IN.
(ACMA23)	GDLST 587-D B19W10-13V7C7 (POS. 1)	0.000	20.000	0.000	60.000	YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

CANARD 1.000



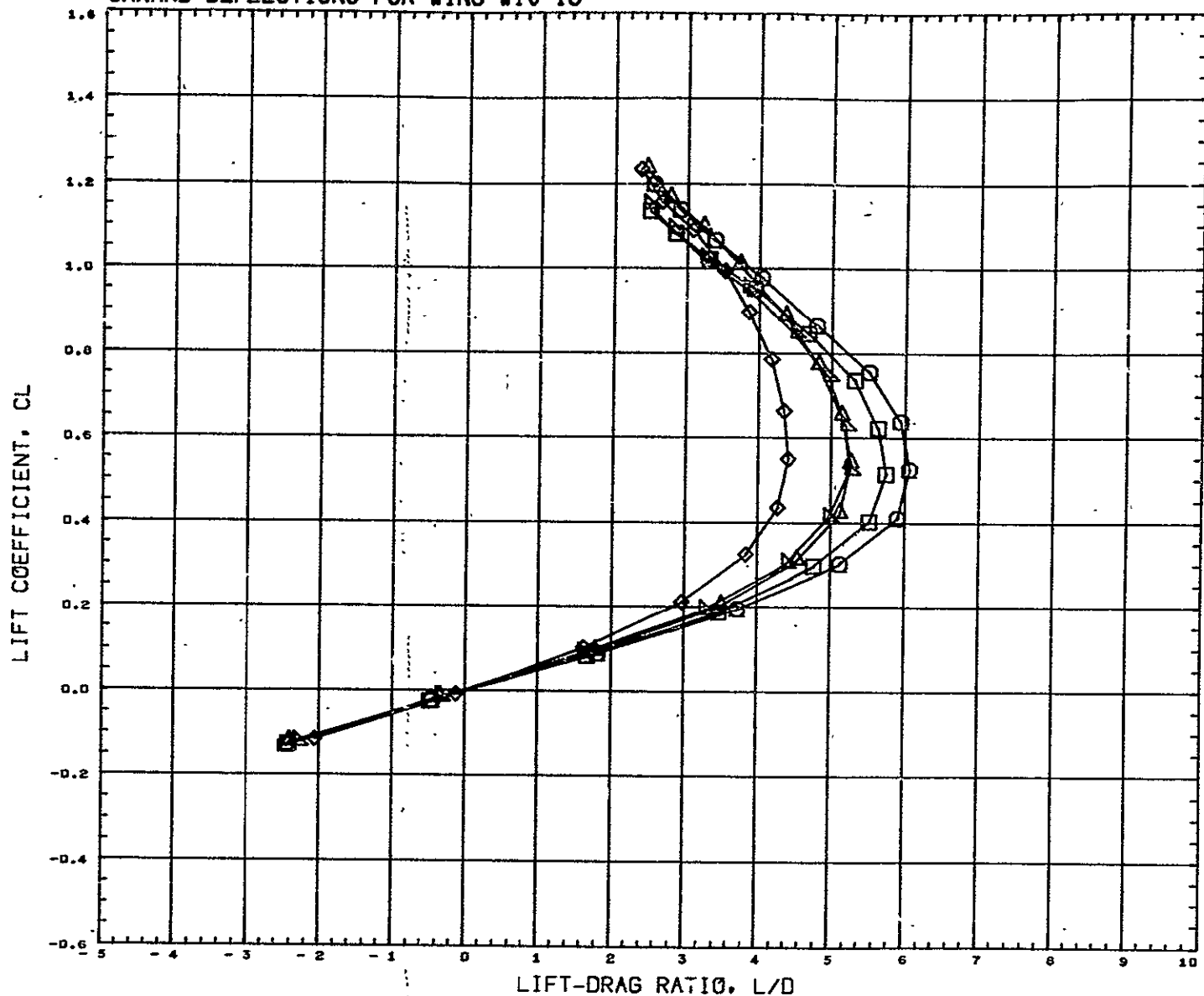
# CANARD DEFLECTIONS FOR WING W10-13



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCHA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	60.000	REFS	343.8704	SQ. IN
(ACHA24)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	REFL	15.0620	IN.
(ACHA25)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	REFB	30.4400	IN.
(ACHA22)	GDLST 587-0 B19W10-13V7C7 (POS. 1)	0.000	10.000	0.000	60.000	XMRP	33.4360	IN.
(ACHA23)	GDLST 587-0 B19W10-13V7C7 (POS. 1)	0.000	20.000	0.000	60.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

CANARD 1.000

# CANARD DEFLECTIONS FOR WING W10-13



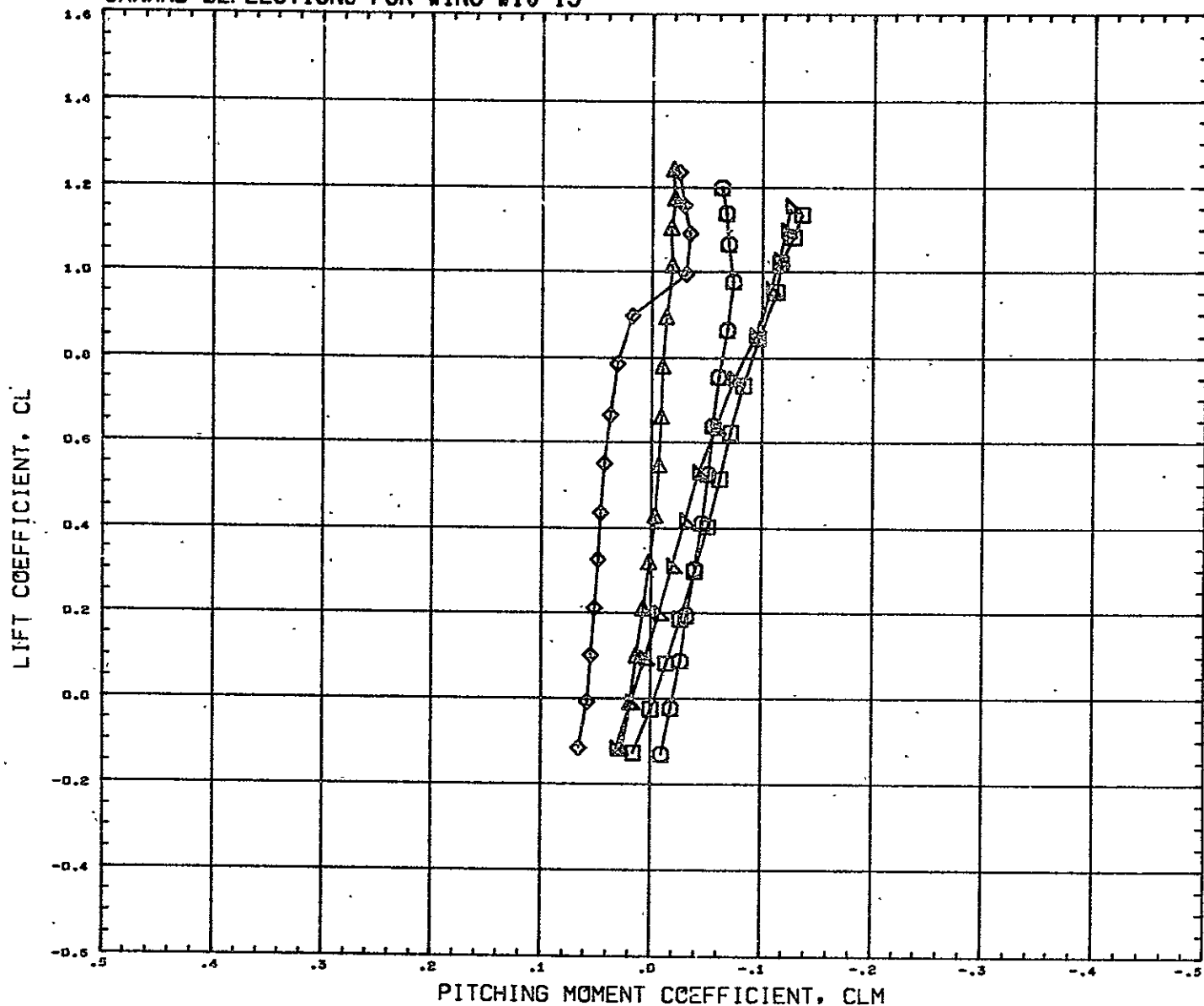
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(DCMA21)	GDLST 587-D B19W10-13V7C4
(ACMA24)	GDLST 587-D B19W10-13V7C4 (POS. 1)
(ACMA25)	GDLST 587-D B19W10-13V7C4 (POS. 1)
(ACMA22)	GDLST 587-D B19W10-13V7C7 (POS. 1)
(ACMA23)	GDLST 587-D B19W10-13V7C7 (POS. 1)

CANARD 1.000

LIFT-DRAGE RATIO, L/D

BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
0.000	0.000	0.000	47.000	REFS 343.8704 sq. IN
0.000	10.000	0.000	60.000	REFL 15.0620 IN.
0.000	20.000	0.000	60.000	REFB 30.4400 IN.
0.000	10.000	0.000	60.000	XMRP 33.4360 IN.
0.000	20.000	0.000	60.000	YMRF 0.0000 IN.
				ZMRF 3.9380 IN.
				SCALE 0.0175

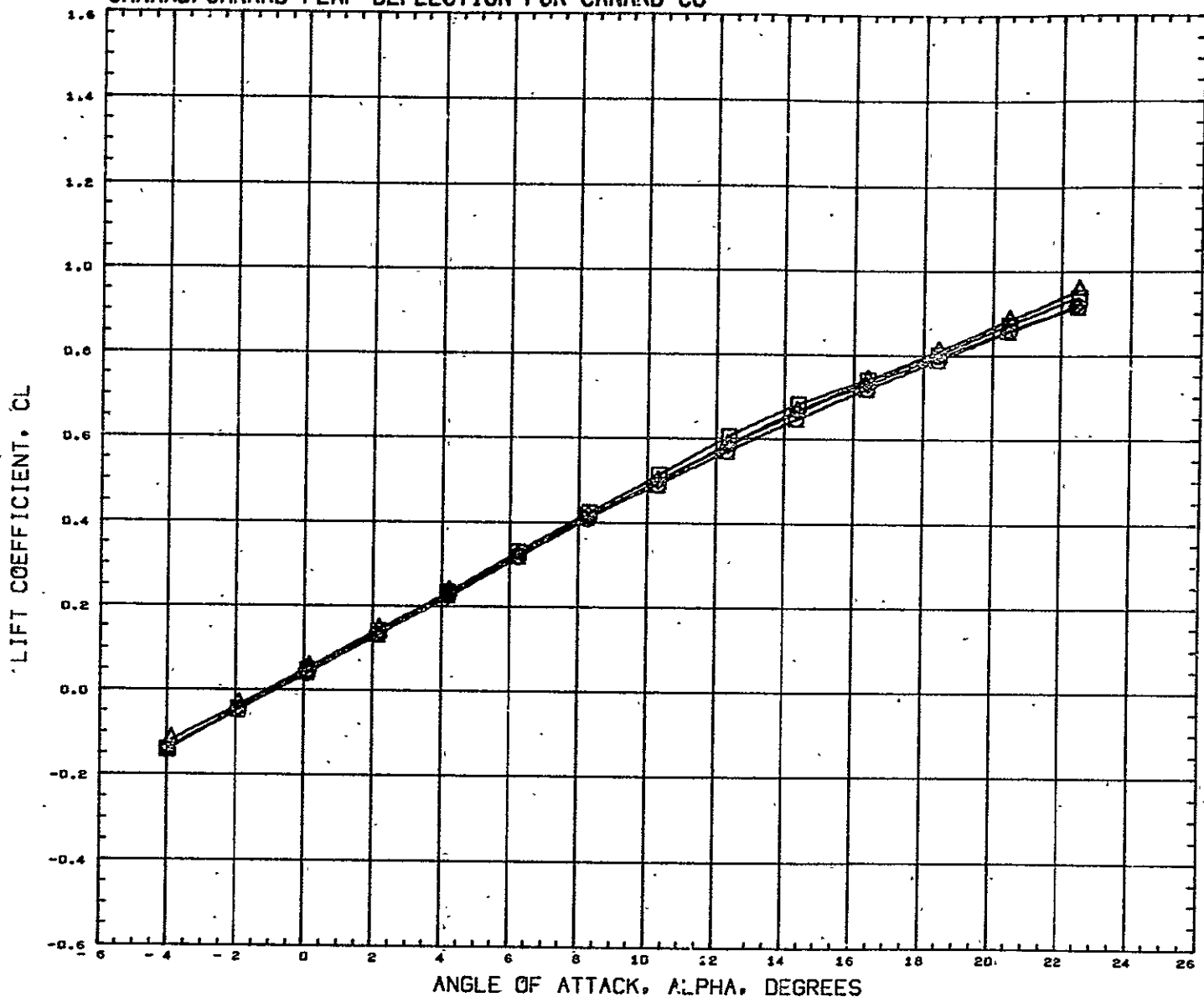
# CANARD DEFLECTIONS FOR WING W10-13



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(DCHA21)	GDLST 587-0 B19W10-13V7C4	0.000	0.000	0.000	10.000	REFS	343.8704	Sq. IN
(ACHA24)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	10.000	0.000	60.000	REFL	15.0620	IN.
(ACHA25)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	0.000	20.000	0.000	60.000	REFB	30.4400	IN.
(ACHA22)	GDLST 587-0 B19W10-13V7C7 (POS. 1)	0.000	10.000	0.000	60.000	XMRP	33.4360	IN.
(ACHA23)	GDLST 587-0 B19W10-13V7C7 (POS. 1)	0.000	20.000	0.000	60.000	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

CANARD 1.000

# CANARD/CANARD FLAP DEFLECTION FOR CANARD C6



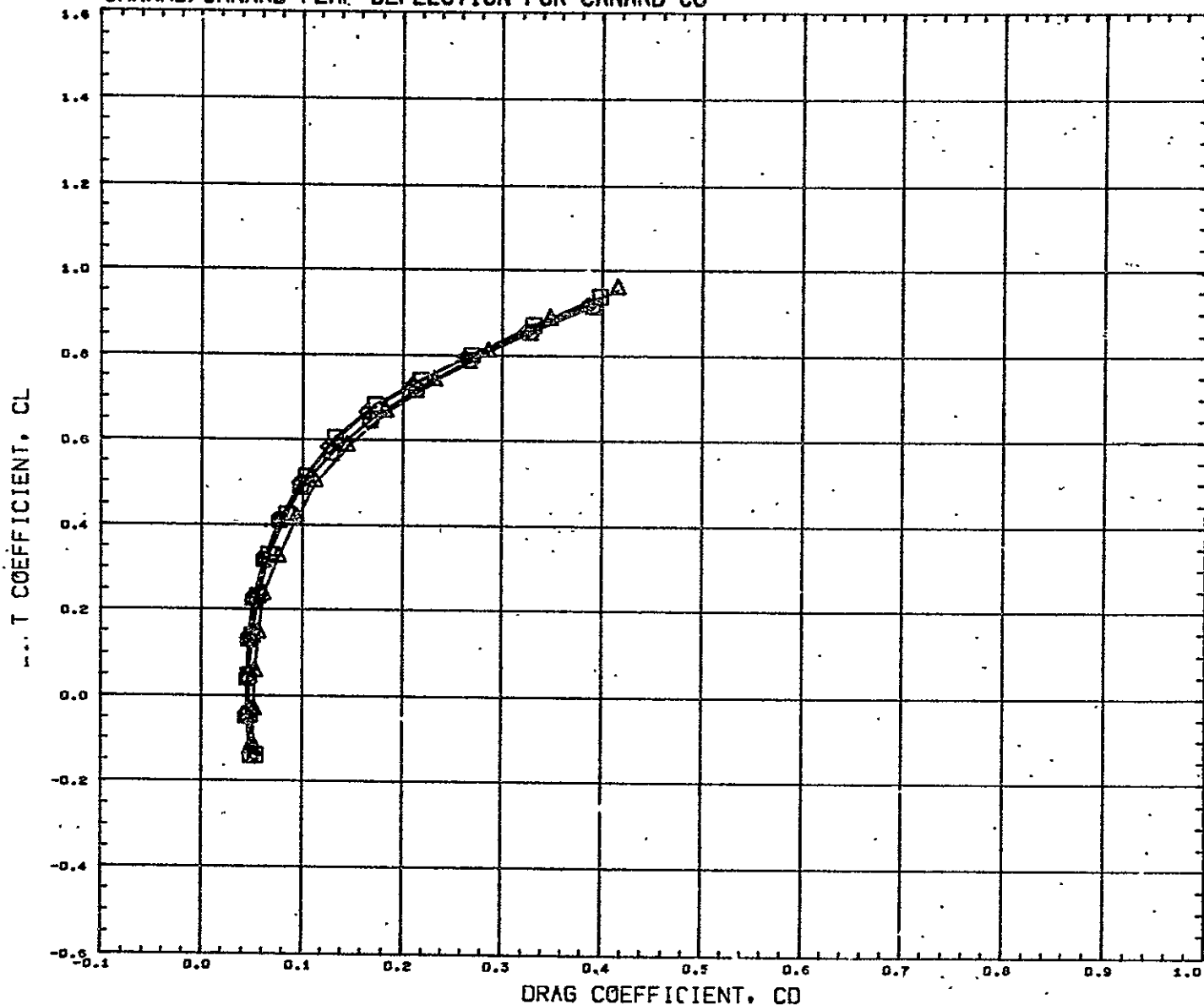
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMA45)	GDLST 587-0 B19W10V7C6 (POS. 1)
(ICMA44)	GDLST 587-0 B19W10V7C6 (POS. 1)
(ACMA46)	GDLST 587-0 B19W10V7C6 (POS. 1)
(ACMA47)	GDLST 587-0 B19W10V7C6 (POS. 1)

CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	60.000
1.000	20.000	0.000	60.000
1.000	-10.000	20.000	60.000
1.000	-10.000	40.000	60.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9360	IN.
SCALE	0.0175	

BETA 0.000

# CANARD/CANARD FLAP DEFLECTION FOR CANARD C6



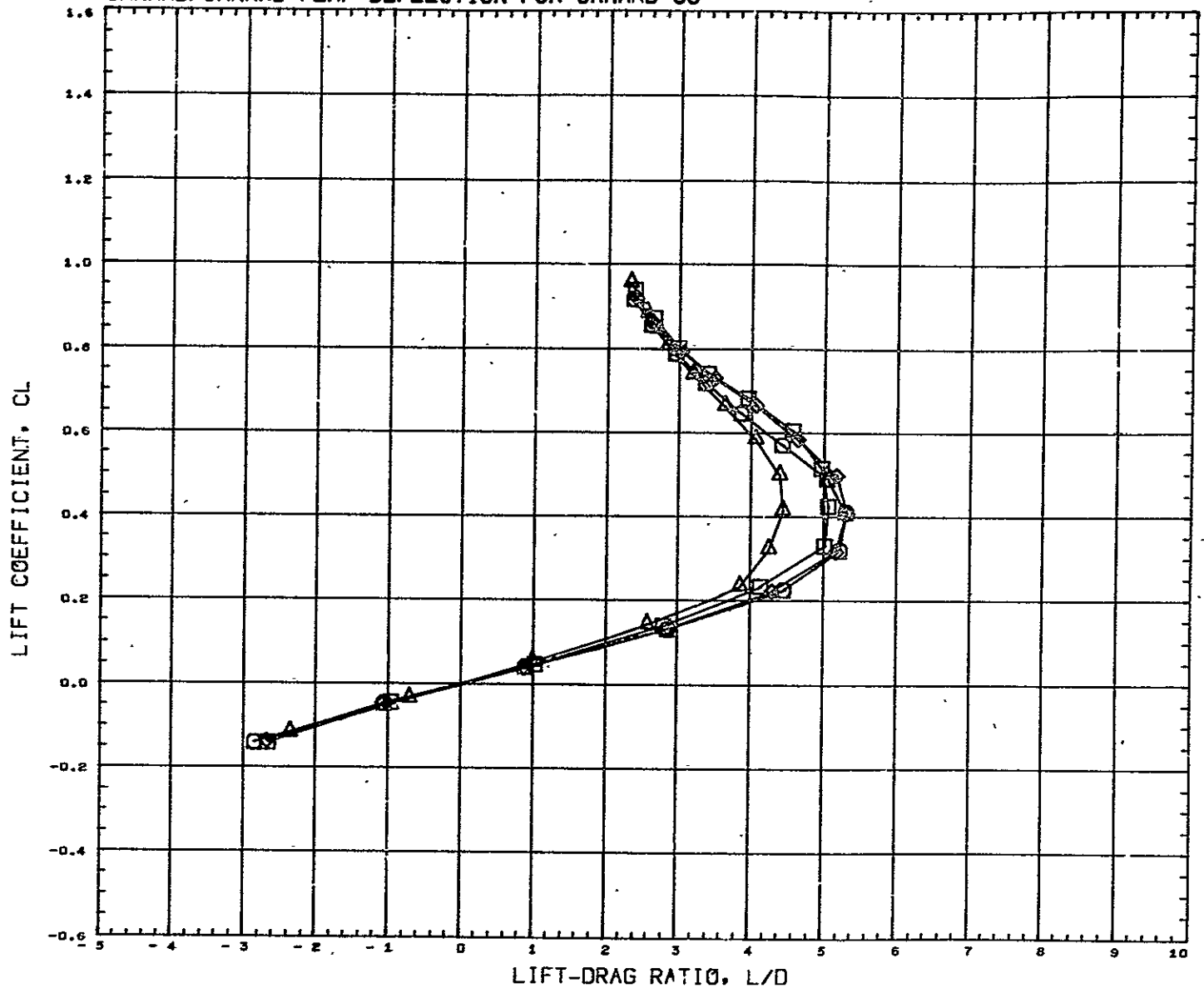
DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ICMA45)	GDLST 587-0	B19W10V7C6 (POS. 1)
(ICMA44)	GDLST 587-0	B19W10V7C6 (POS. 1)
(ACMA46)	GDLST 587-0	B19W10V7C6 (POS. 1)
(ACMA47)	GDLST 587-0	B19W10V7C6 (POS. 1)

BETA 0.000

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
1.000	0.000	0.000	20.000	REFS	343.8704	SQ. IN.
1.000	20.000	0.000	20.000	REFL	15.0620	IN.
1.000	-10.000	20.000	60.000	REFB	30.4400	IN.
1.000	-10.000	40.000	60.000	XMRP	33.4360	IN.
				YMRP	0.0000	IN.
				ZMRP	3.9300	IN.
				E	0.0175	

# CANARD/CANARD FLAP DEFLECTION FOR CANARD C6



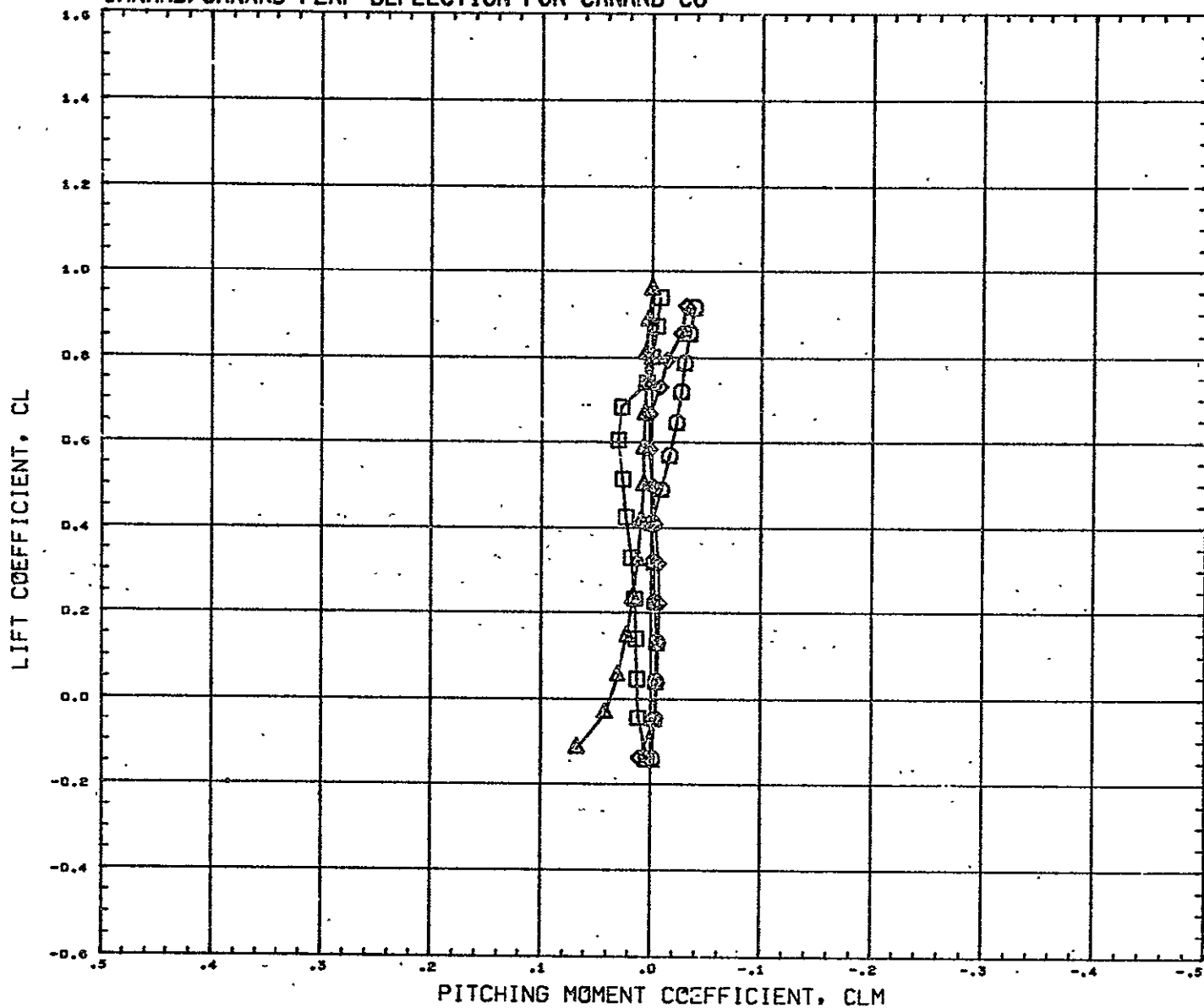
DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(ICMA45)	○	GDLST 587-0	B19W10V7C6 (POS. 1)
(ICMA44)	△	GDLST 587-0	B19W10V7C6 (POS. 1)
(ACMA46)	◇	GDLST 587-0	B19W10V7C6 (POS. 1)
(ACMA47)	□	GDLST 587-0	B19W10V7C6 (POS. 1)

LIFT-DRAGE RATIO, L/D

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 343.8704 Sq. IN
1.000	20.000	0.000	60.000	REFL 15.0620 IN.
1.000	-10.000	20.000	60.000	REFB 30.4400 IN.
1.000	-10.000	40.000	60.000	XMRP 33.4360 IN.
				THRT 0.0000 IN.
				ZMRP 5.9380 IN.
				SCALE 0.0175

BETA 0.000

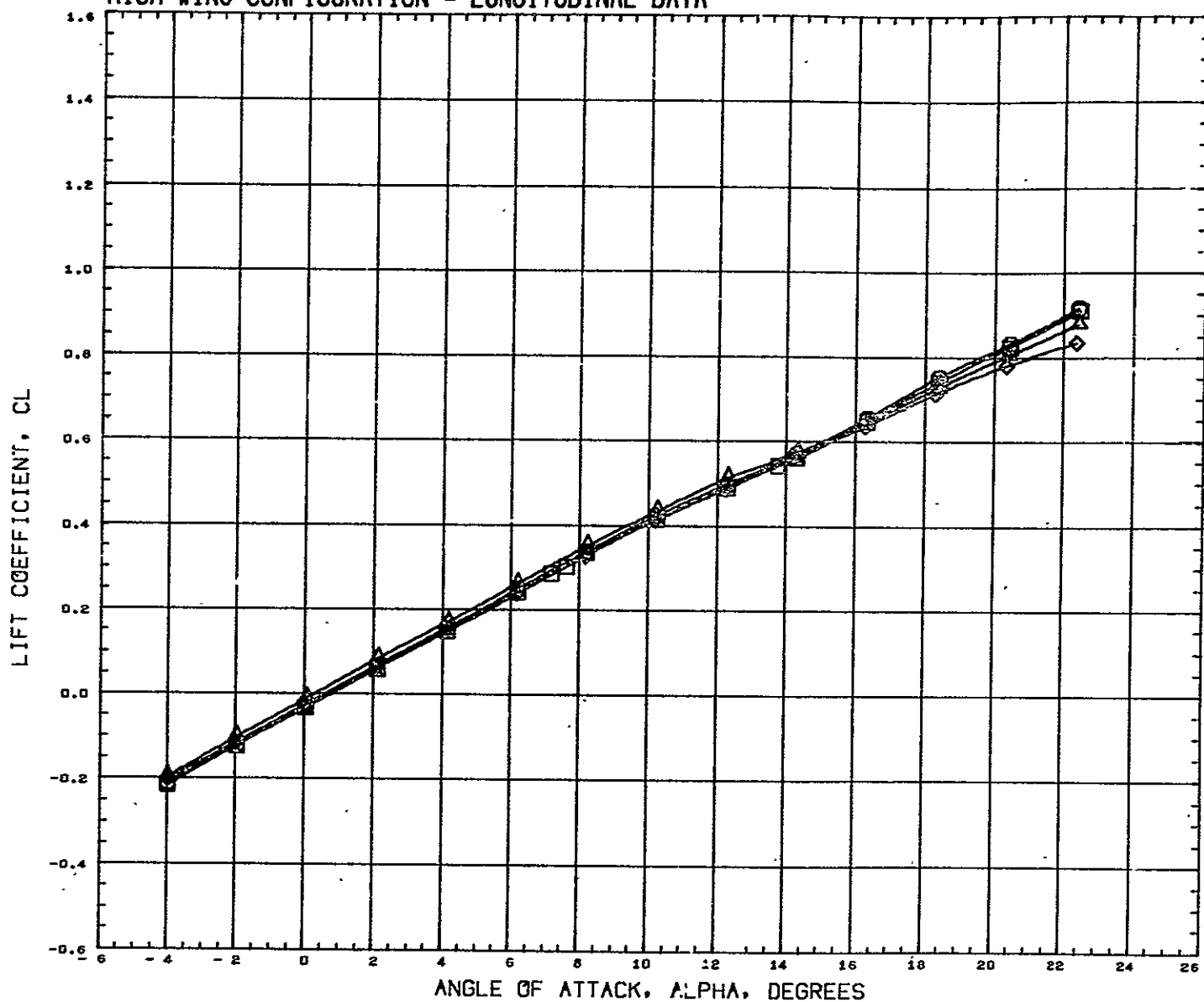
# CANARD/CANARD FLAP DEFLECTION FOR CANARD C6



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ACHA45)	GDLST 587-0 B19W10V7C6 (POS. 1)	1.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(ACHA44)	GDLST 587-0 B19W10V7C6 (POS. 1)	1.000	20.000	0.000	60.000	REFL 15.0620 IN.
(ACHA46)	GDLST 587-0 B19W10V7C6 (POS. 1)	1.000	-10.000	20.000	60.000	REFB 30.4400 IN.
(ACHA47)	GDLST 587-0 B19W10V7C6 (POS. 1)	1.000	-10.000	40.000	60.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

BETA 0.000

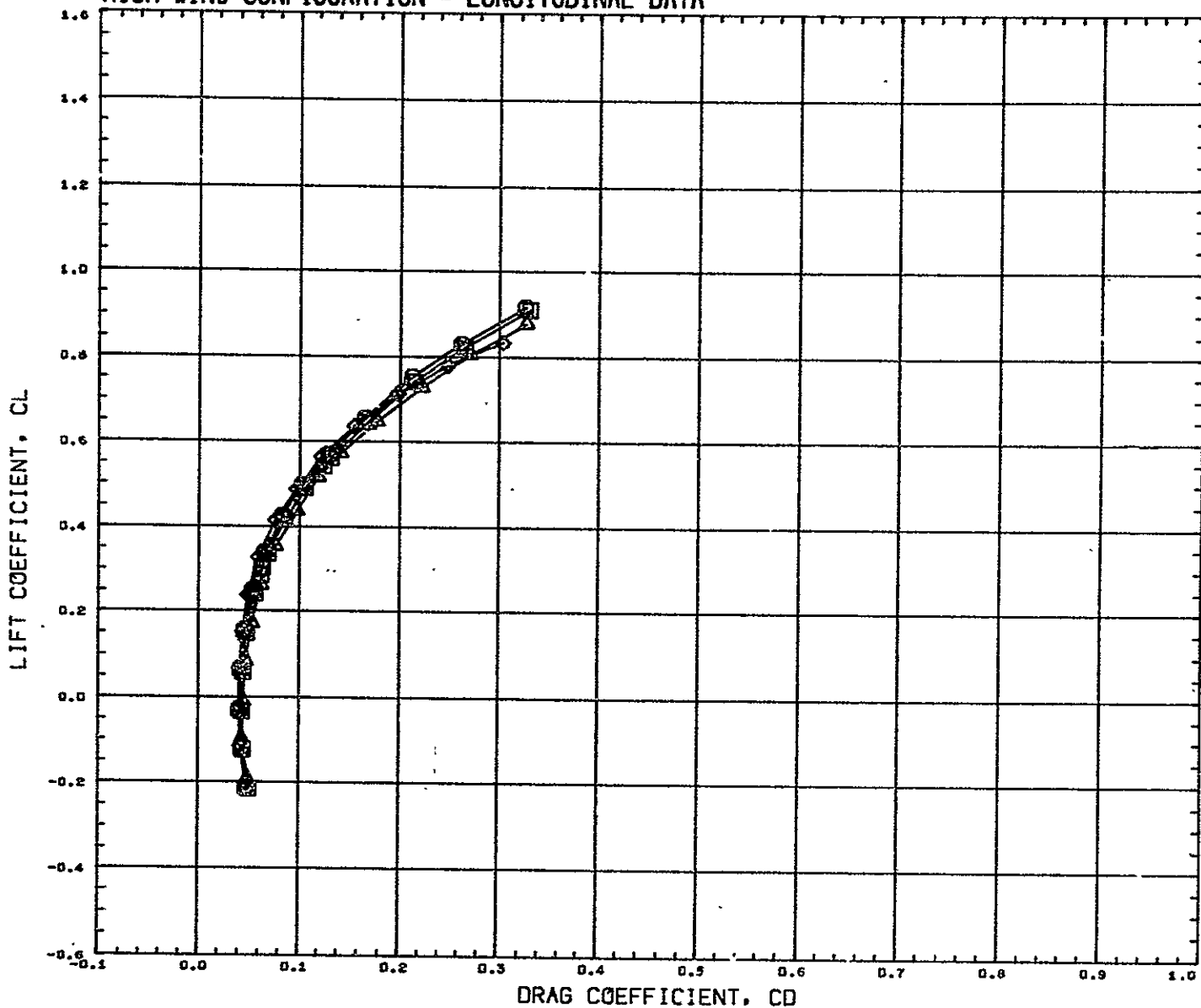
# HIGH WING CONFIGURATION - LONGITUDINAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICHA61)	GDLST 587-D 820W10C4 (POS. 8) INVERTED	8.000	0.000	0.000	60.400	REFS	343.8704	SQ. IN
(ICHA62)	GDLST 587-D 820W10C4 (POS. 8) INVERTED	8.000	10.000	0.000	60.400	REFL	15.0620	IN.
(ICHA63)	GDLST 587-D 820W10 INVERTED	8.000	0.000	0.000	60.400	REFB	30.4400	IN.
(ICHA64)	GDLST 587-D 820W10-3C4 (POS. 8) INVERTED	8.000	0.000	0.000	60.400	XHRP	33.4360	IN.
						YHRP	0.0000	IN.
						ZHRP	3.9380	IN.
						SCALE	0.0175	
BETA	0.000							



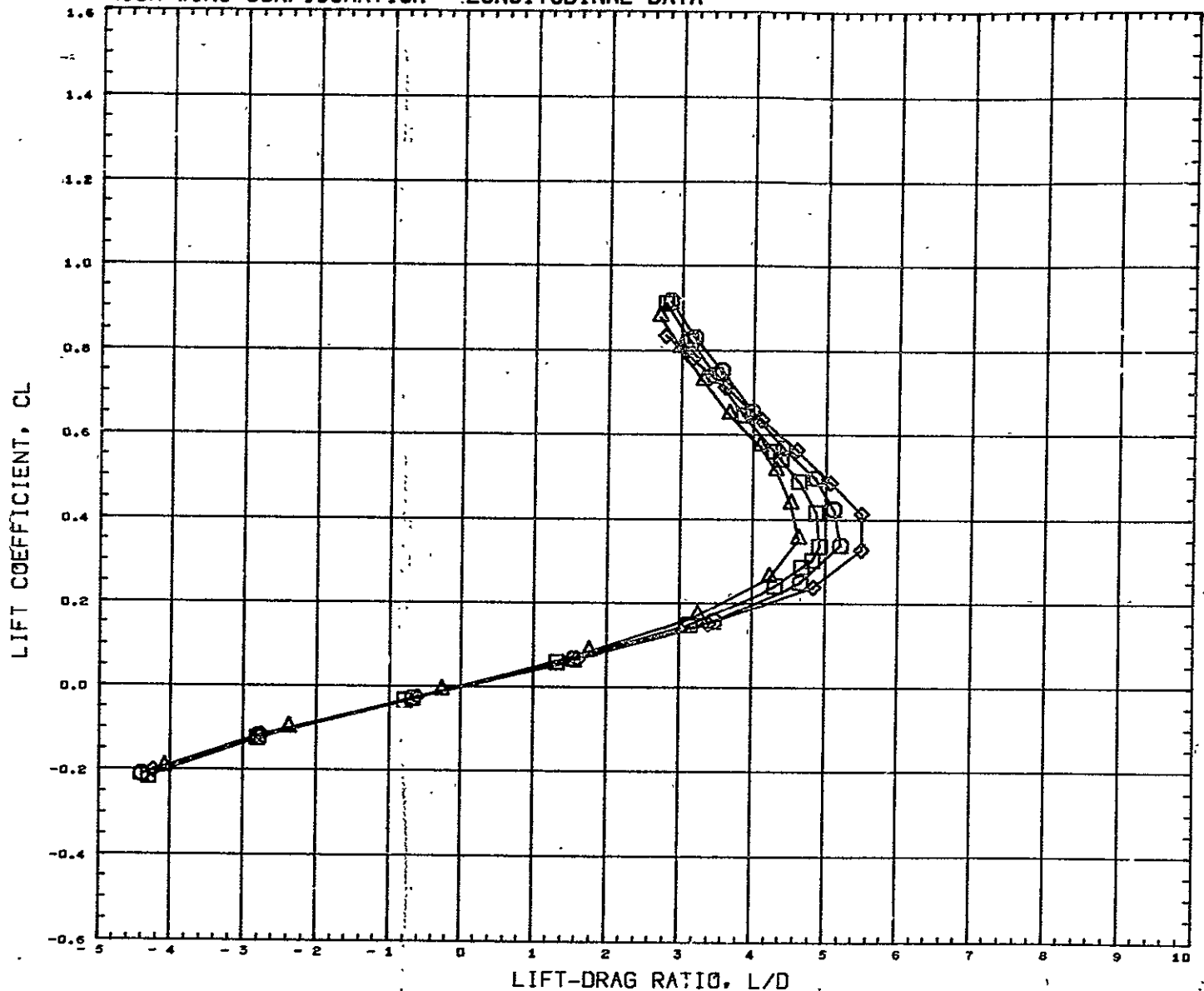
# HIGH WING CONFIGURATION - LONGITUDINAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ICMA61)	GDLST 587-D B2DW10C4 (POS. 8) INVERTED	8.000	0.000	0.000	60.400	REFS 343.8704 SQ. IN
(ICMA62)	GDLST 587-D B2DW10C4 (POS. 8) INVERTED	8.000	10.000	0.000	60.400	REFL 15.0620 IN.
(ICMA63)	GDLST 587-D B2DW10 INVERTED	8.000	0.000	0.000	60.400	REFB 30.4400 IN.
(ICMA64)	GDLST 587-D B2DW10-SC4 (POS. 8) INVERTED	8.000	0.000	0.000	60.400	XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SC/LE 0.0175

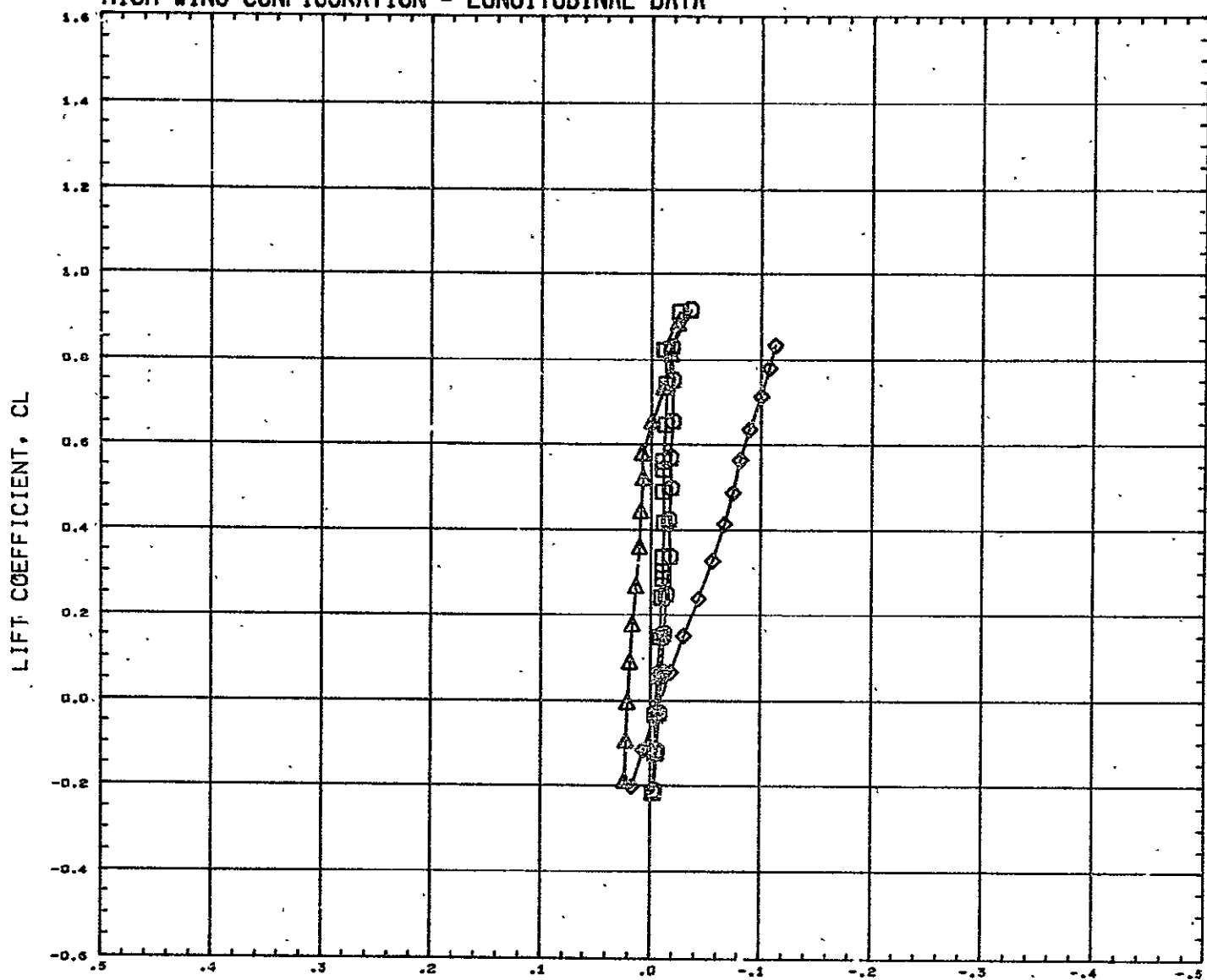
BETA 0.000

# HIGH WING CONFIGURATION - LONGITUDINAL DATA



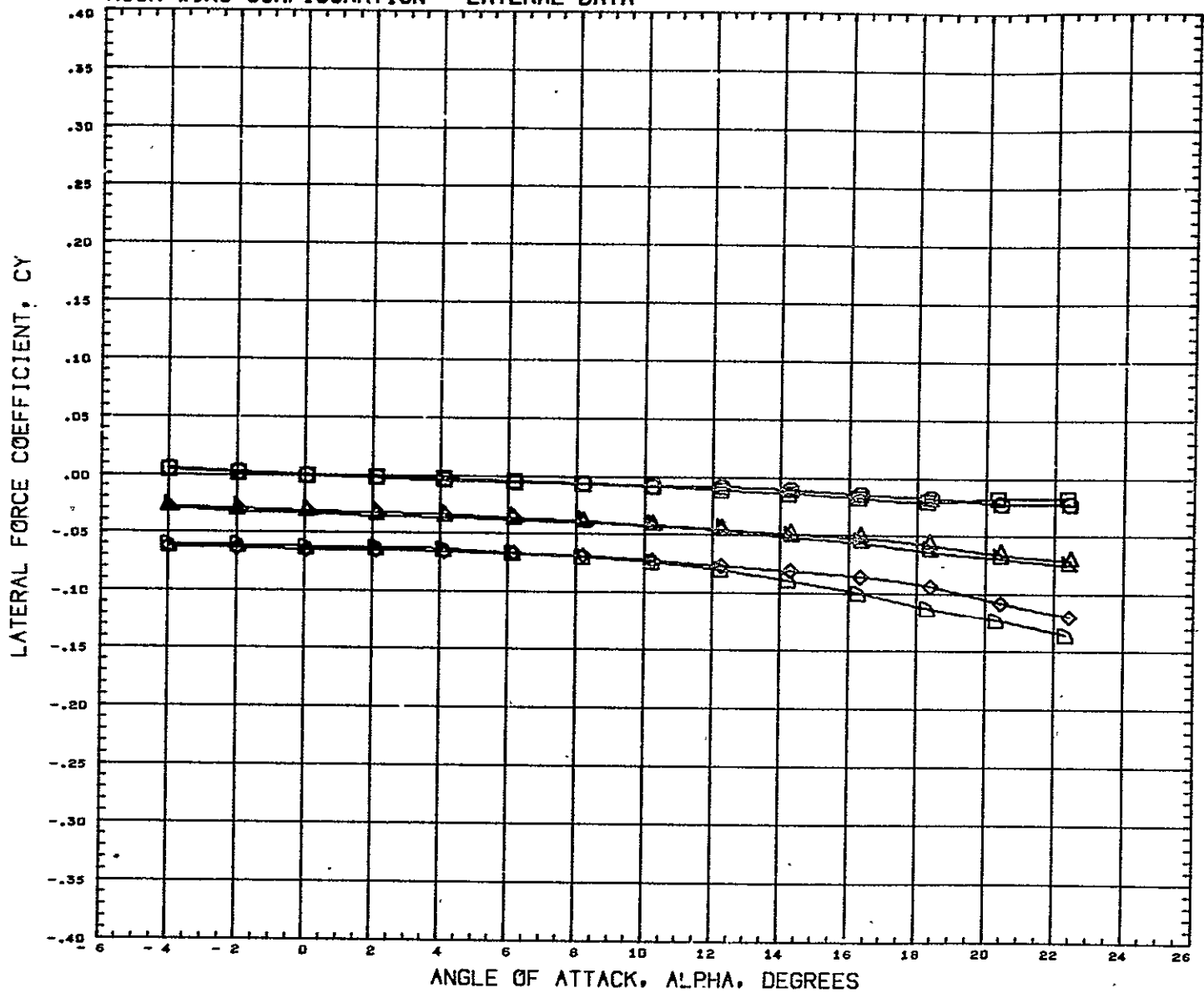
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	$\delta$	REFERENCE INFORMATION		
(ICHA61)	○	GDLST 587-0 B20W10C4 (POS. 8)	INVERTED	8.000	0.000	0.000	67.420	REFS	343.8704 SQ. IN
(ICHA62)	△	GDLST 587-0 B20W10C4 (POS. 8)	INVERTED	8.000	10.000	0.000	60.00	REFL	15.0620 IN.
(ICHA63)	◇	GDLST 587-0 B20W10	INVERTED	8.000	0.000	0.000	60.400	REFB	30.4400 IN.
(ICHA64)	□	GDLST 587-0 B20W10-3C4 (POS. 8)	INVERTED	8.000	0.000	0.000	60.400	XHRF	33.4360 IN.
								YHRF	0.0000 IN.
								ZHRF	3.9380 IN.
								SCALE	0.0175
BETA		0.000							

# HIGH WING CONFIGURATION - LONGITUDINAL DATA



DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICMA61)	○	GDLST 587-D B20W10C4 (POS. 8) INVERTED	8.000	0.000	0.000	60.400	REFS	343.8704	SQ. IN
(ICMA62)	△	GDLST 587-D B20W10C4 (POS. 8) INVERTED	8.000	10.000	0.000	60.400	REFL	15.0620	IN.
(ICMA63)	◇	GDLST 587-D B20W10 INVERTED	8.000	0.000	0.000	60.400	REFB	30.4400	IN.
(ICMA64)	□	GDLST 587-D B20W10-3C4 (POS. 8) INVERTED	8.000	0.000	0.000	60.400	XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9380	IN.
							SCALE	0.0175	
BETA 0.000									

# HIGH WING CONFIGURATION - LATERAL DATA



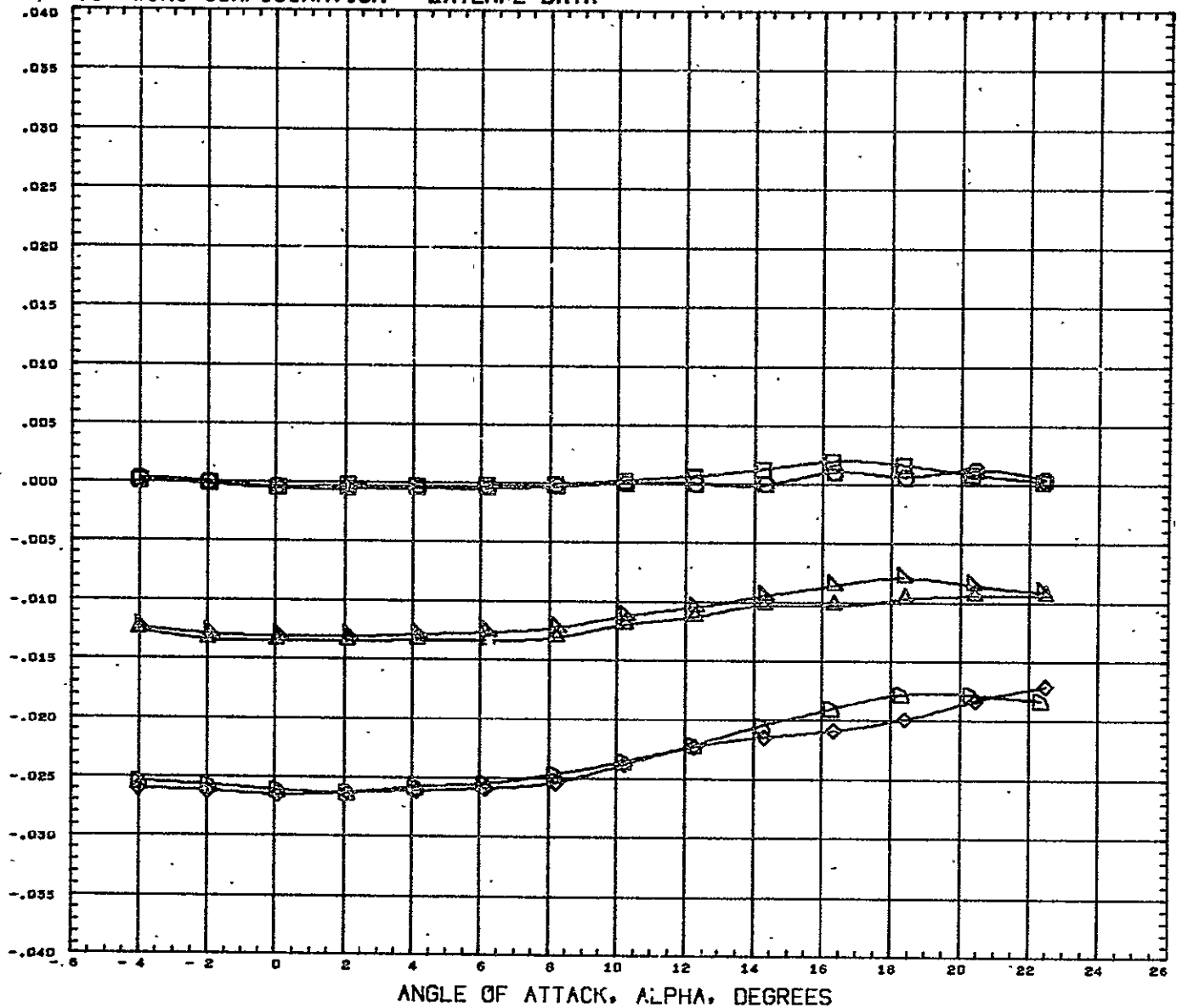
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION
(OCHA61)	GDLST 587-D 820W10C4 (POS. 8)	INVERTED	0.000	8.000	0.000	REFS 343.8704 SQ. IN
(PCHA61)	GDLST 587-D 820W10C4 (POS. 8)	INVERTED	4.000	8.000	0.000	REFL 15.0620 IN.
(QCHA61)	GDLST 587-D 820W10C4 (POS. 8)	INVERTED	8.000	8.000	0.000	REFB 30.4400 IN.
(OCHA63)	GDLST 587-D 820W10	INVERTED	0.000	8.000	0.000	XMRP 33.4360 IN.
(PCHA63)	GDLST 587-D 820W10	INVERTED	4.000	8.000	0.000	YMRP 0.0000 IN.
(QCHA63)	GDLST 587-D 820W10	INVERTED	8.000	8.000	0.000	ZMRP 3.9380 IN.
						SCALE 0.0175

q

60.400

# HIGH WING CONFIGURATION - LATERAL DATA

YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)

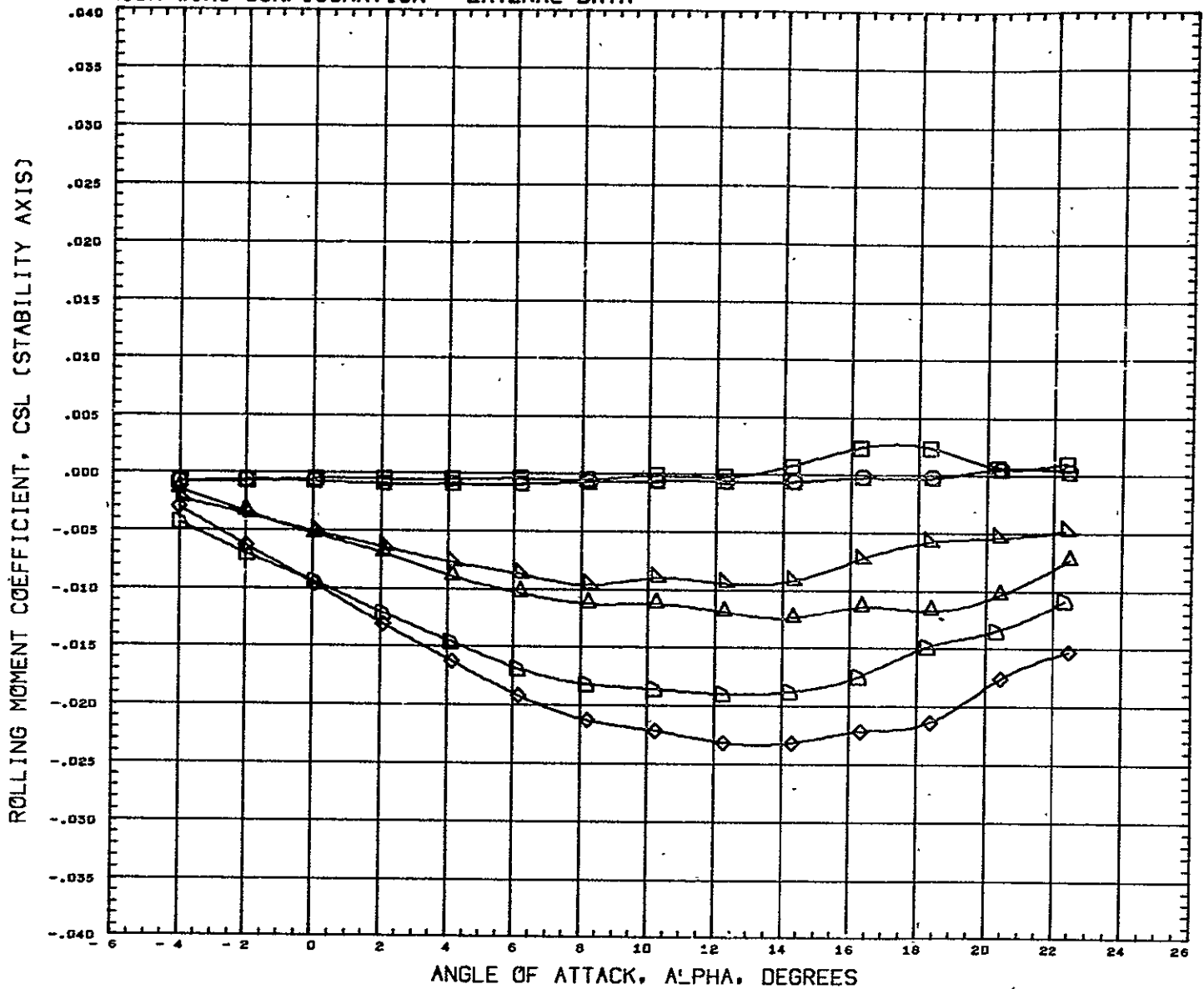


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION
(OCHA61)	GDLST 587-D B2DW10C4 (POS. 8)	INVERTED	0.000	8.000	0.000	7.500 REFS 343.8704 SQ. IN
(PCHA61)	GDLST 587-D B2DW10C4 (POS. 8)	INVERTED	4.000	8.000	0.000	0.300 REFL 15.0620 IN.
(QCHA61)	GDLST 587-D B2DW10C4 (POS. 8)	INVERTED	8.000	8.000	0.000	0.000 REFB 30.4400 IN.
(OCHA63)	GDLST 587-D B2DW10	INVERTED	0.000	8.000	0.000	0.000 XMRP 33.4360 IN.
(PCHA63)	GDLST 587-D B2DW10	INVERTED	4.000	8.000	0.000	0.000 YMRP 0.0000 IN.
(QCHA63)	GDLST 587-D B2DW10	INVERTED	8.000	8.000	0.000	0.000 ZMRP 3.9360 IN.
						SCALE 0.0175

Q

.60.400

# HIGH WING CONFIGURATION - LATERAL DATA

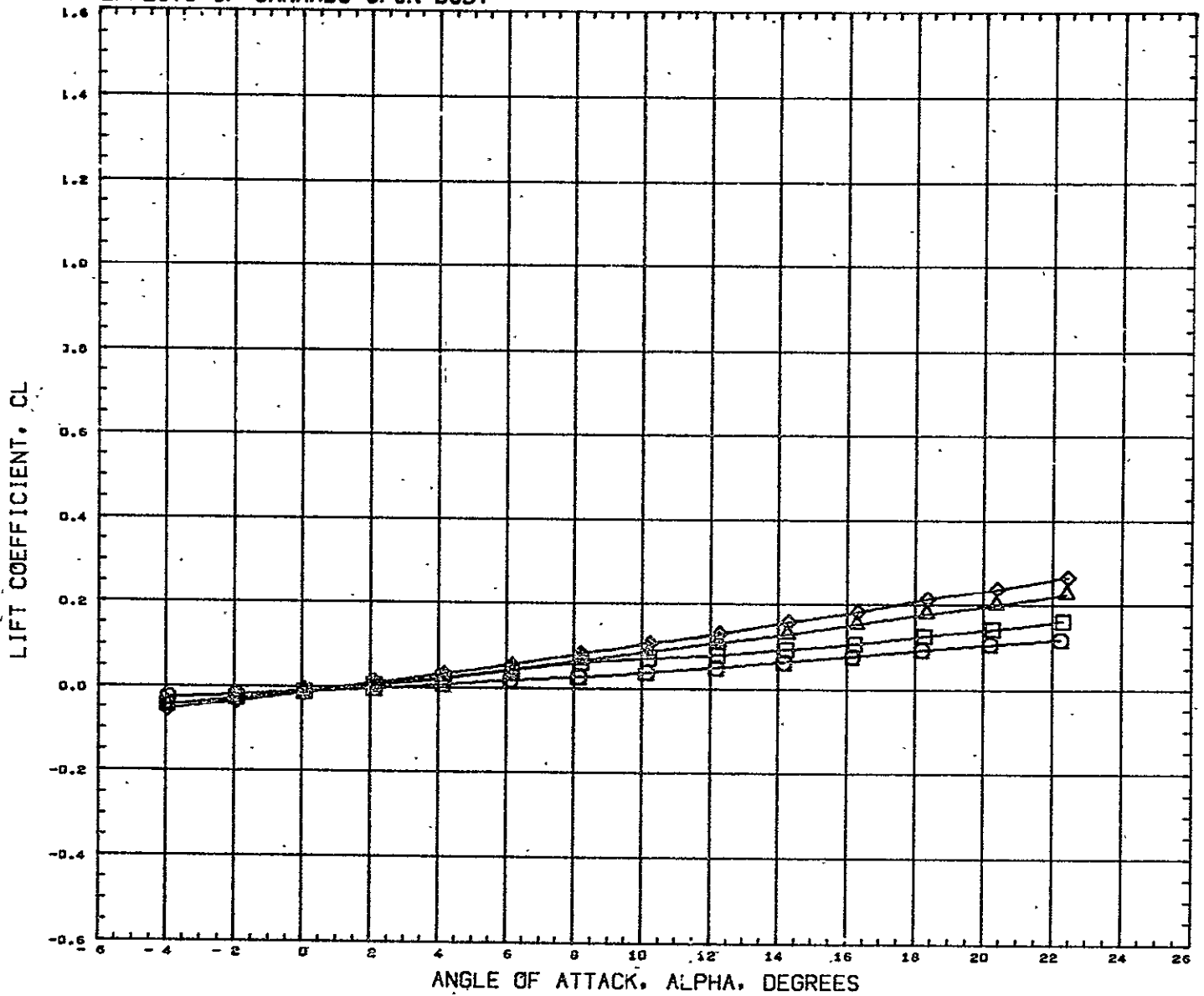


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION
(OCMA61)	GDLST 587-0 B20W1DC4 (POS. 8)	INVERTED	0.000	8.000	0.000	REFS 343.8704 SQ. IN
(PCMA61)	GDLST 587-0 B20W1DC4 (POS. 8)	INVERTED	4.000	8.000	0.000	REFL 15.0620 IN.
(QCHA61)	GDLST 587-0 B20W1DC4 (POS. 8)	INVERTED	8.000	8.000	0.000	REFB 30.4400 IN.
(OCMA63)	GDLST 587-0 B20W1D	INVERTED	0.000	8.000	0.000	XMRP 33.4360 IN.
(PCMA63)	GDLST 587-0 B20W1D	INVERTED	4.000	8.000	0.000	YMRP 0.0000 IN.
(QCHA63)	GDLST 587-0 B20W1D	INVERTED	8.000	8.000	0.000	ZMRP 3.9380 IN.
						SCALE 0.0175

q

60.400

# EFFECTS OF CANARDS UPON BODY



DATA SET S/NBOL CONFIGURATION DESCRIPTION

(ICMA51) GDLST 587-D B19

(ICMA52) GDLST 587-D B19C4 (POSITION 1)

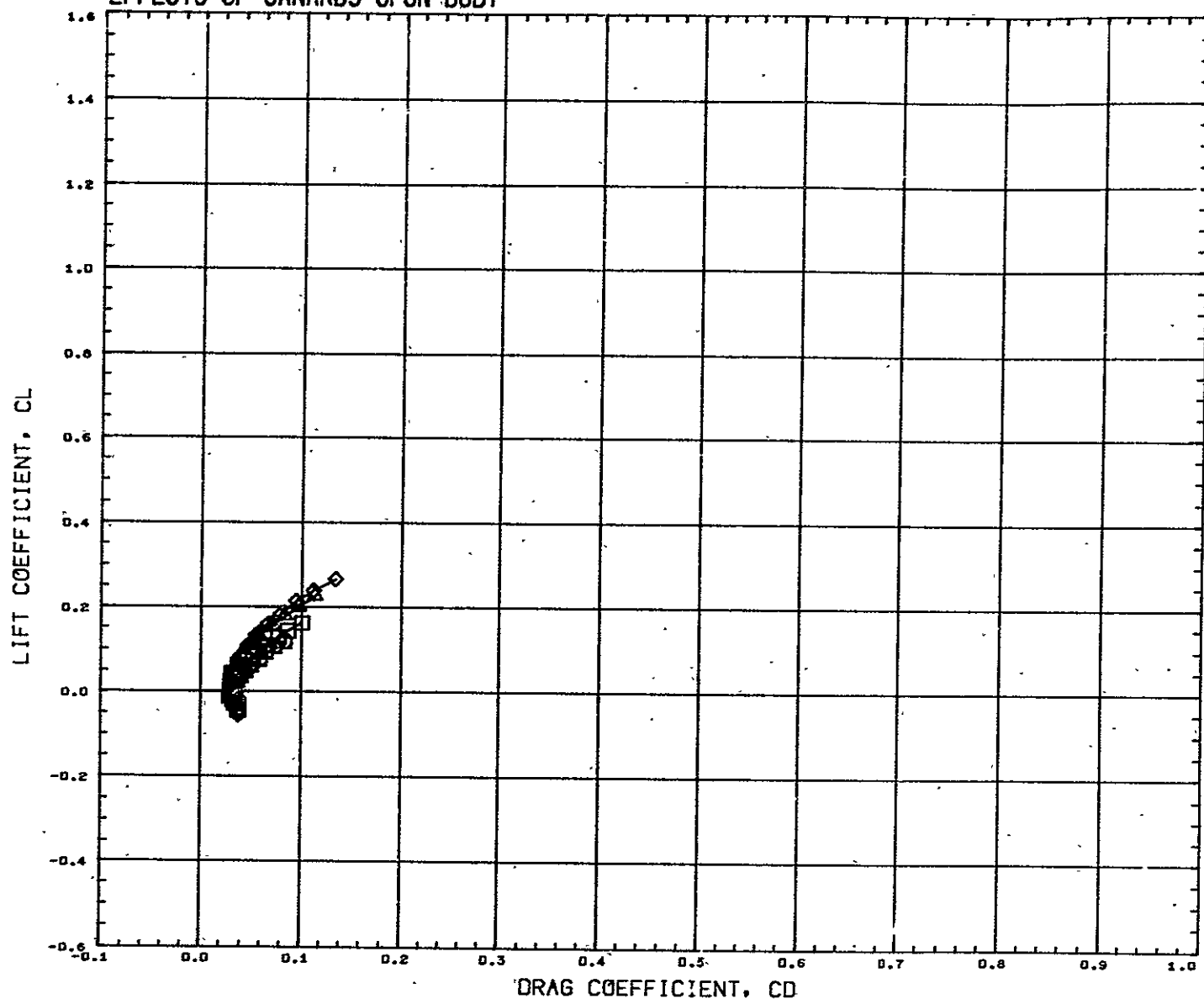
(ICMA53) GDLST 587-D B19C5 (POSITION 1)

(ICMA54) GDLST 587-D B19C6 (POSITION 1)

CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.400	REFS 343.8704 sq. IN
1.000	0.000	0.000	60.400	REFL 15.0620 IN.
1.000	0.000	0.000	60.400	REFB 30.4400 IN.
				XMRRP 33.4360 IN.
				YMRRP 0.0000 IN.
				ZMRRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# EFFECTS OF CANARDS UPON BODY



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICHA51)	GDLST 587-D B19
(ICHA52)	GDLST 587-D B19C4 (POSITION 1)
(ICHA53)	GDLST 587-D B19C5 (POSITION 1)
(ICHA54)	GDLST 587-D B19C6 (POSITION 1)

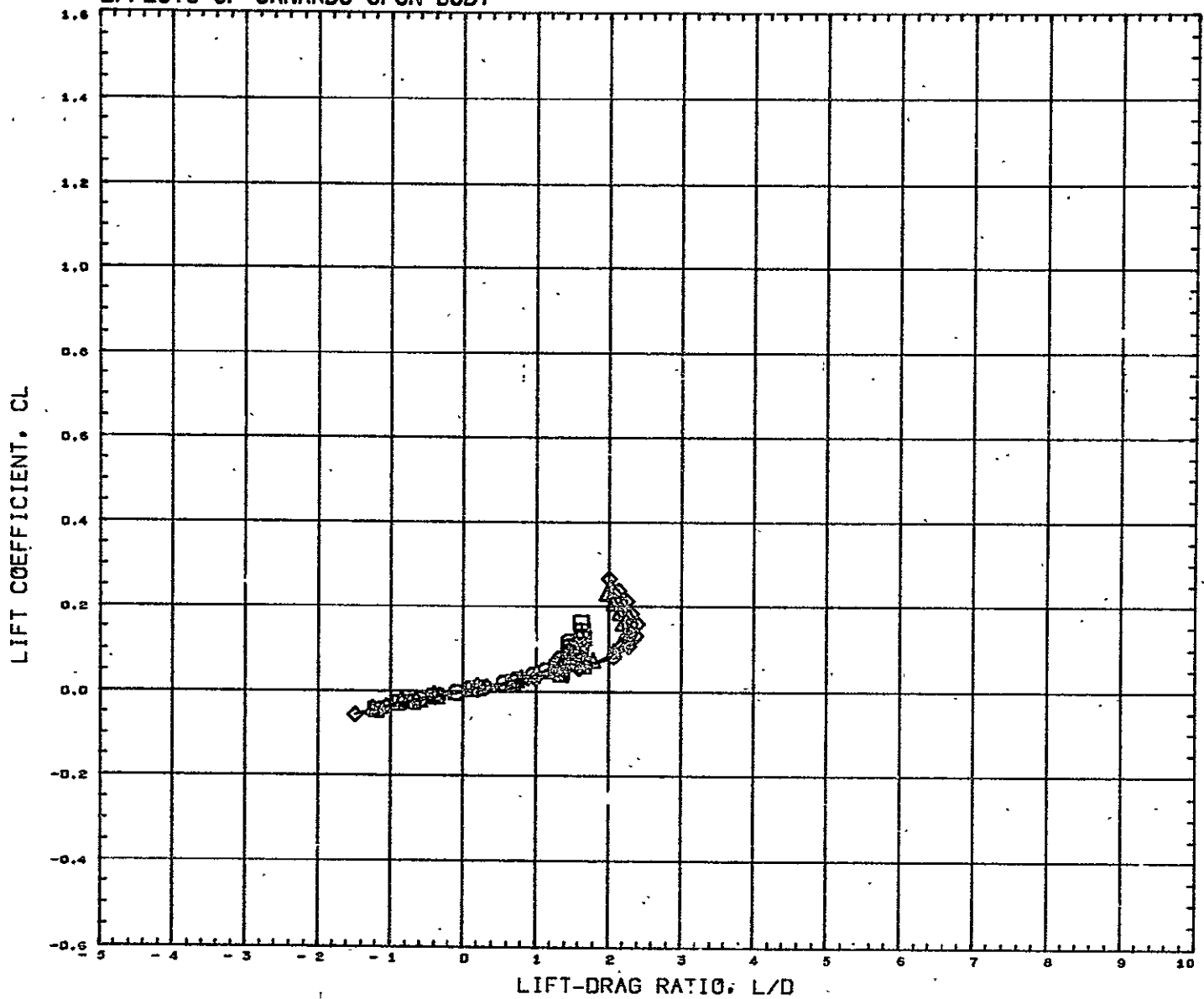
DRAG COEFFICIENT, CD

CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.400	REFS 343.8704 SQ. IN
1.000	0.000	0.000	60.400	REFL 15.0620 IN.
1.000	0.000	0.000	60.400	REFB 30.4400 IN.
				XHRF 33.4360 IN.
				YHRF 0.0000 IN.
				ZHRF 3.9380 IN.
				SCALE 0.0175

BETA 0.000



# EFFECTS OF CANARDS UPON BODY

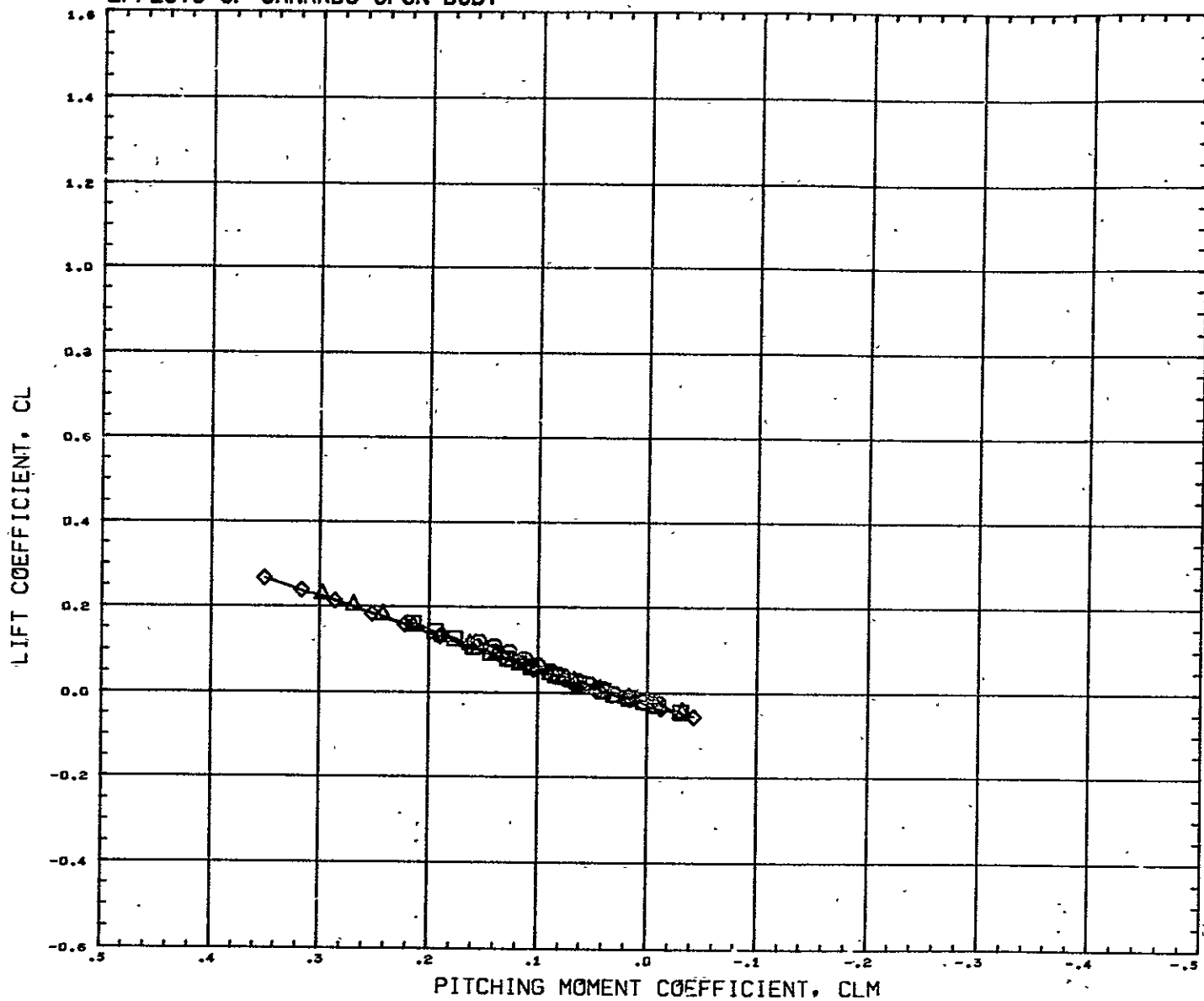


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICHA51)	GDLST 587-D B19
(ICHA52)	GDLST 587-D B19C4 (POSITION 1)
(ICHA53)	GDLST 587-D B19C5 (POSITION 1)
(ICHA54)	GDLST 587-D B19C6 (POSITION 1)

BETA 0.000

CANARD	CANVIR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.400	REFS 343.8704 SQ. IN
1.000	0.000	0.000	60.400	REFL 15.0620 IN.
1.000	0.000	0.000	60.400	REFB 30.4400 IN.
				XHRP 33.4360 IN.
				YHRP 0.0000 IN.
				ZHRP 3.9380 IN.
				SCALE 0.0175

# EFFECTS OF CANARDS UPON BODY

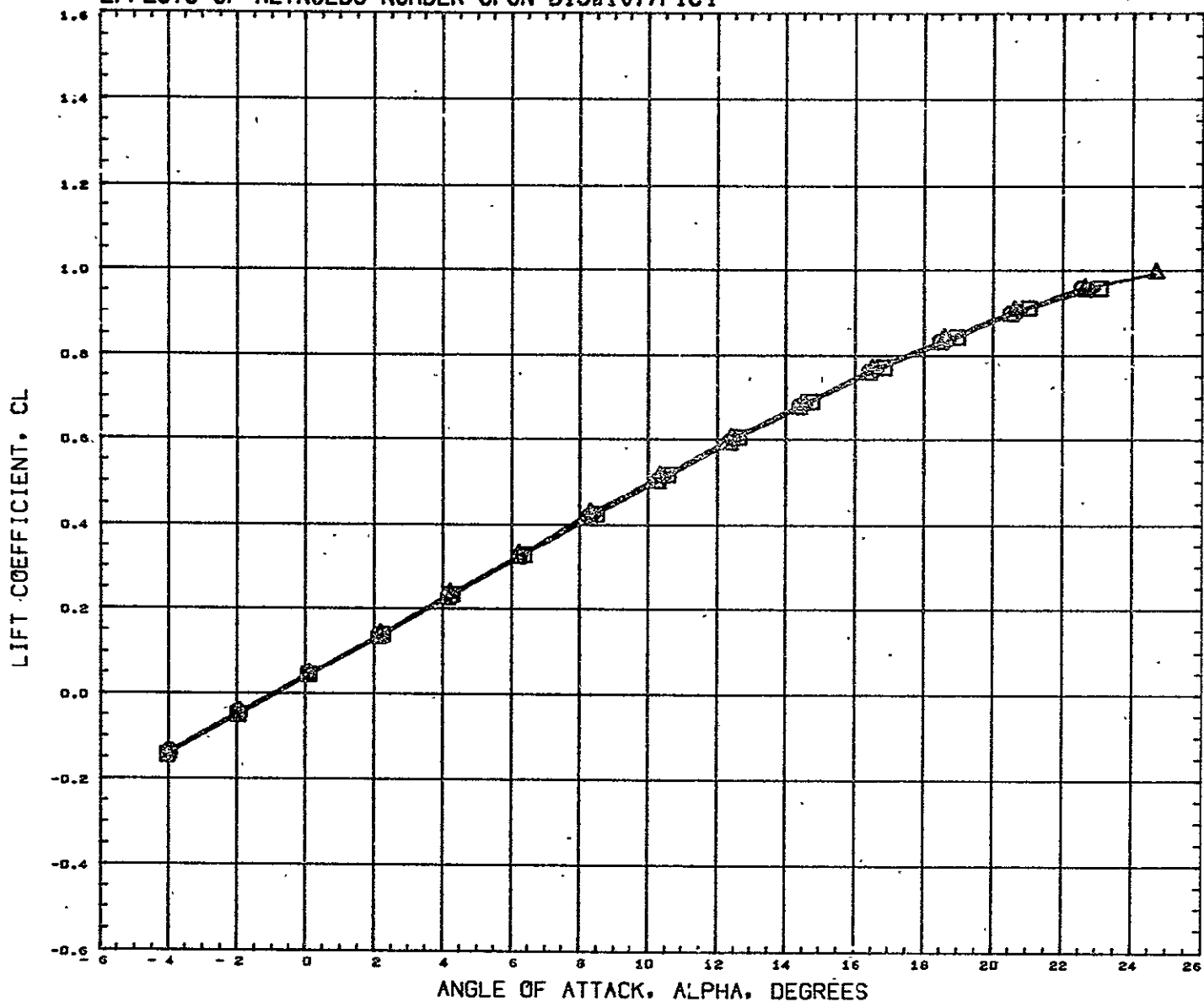


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICHA51)	GDLST 587-D B19
(ICHA52)	GDLST 587-D B19C4 (POSITION 1)
(ICHA53)	GDLST 587-D B19C5 (POSITION 1)
(ICHA54)	GDLST 587-D B19C6 (POSITION 1)

BETA 0.000

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
1.000	0.000	0.000	60.400	REFS	343.8704	sq. IN
1.000	0.000	0.000	60.400	REFL	15.0620	IN.
1.000	0.000	0.000	60.400	REFB	30.4400	IN.
1.000	0.000	0.000	60.400	XMRP	33.4360	IN.
				YMRP	0.0000	IN.
				ZMRP	3.9380	IN.
				SCALE	0.5175	

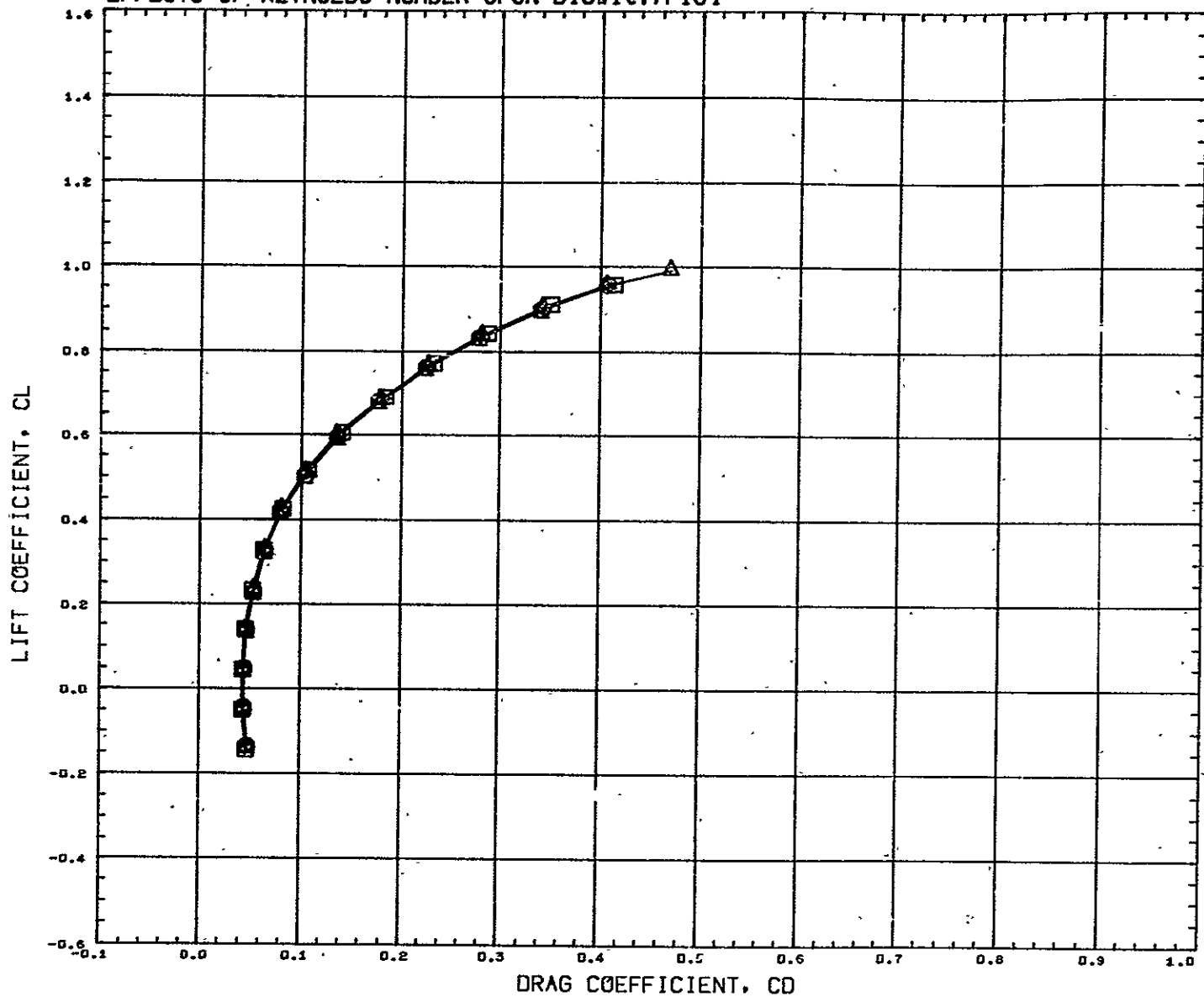
# EFFECTS OF REYNOLDS NUMBER UPON B19W10V7P1C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION		CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ACHA56)	GDLST 587-D B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	57.500	REFS 343.8704 SQ. IN
(ACHA57)	GDLST 587-D B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	76.000	REFL 15.0620 IN.
(ACHA58)	GDLST 587-D B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	102.300	REFB 30.4400 IN.
(ACHA59)	GDLST 587-D B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	154.900	XHRP 33.4360 IN.
							YHRP 0.0000 IN.
							ZHRP 3.9380 IN.
							SCALE 0.0175

BETA 0.000

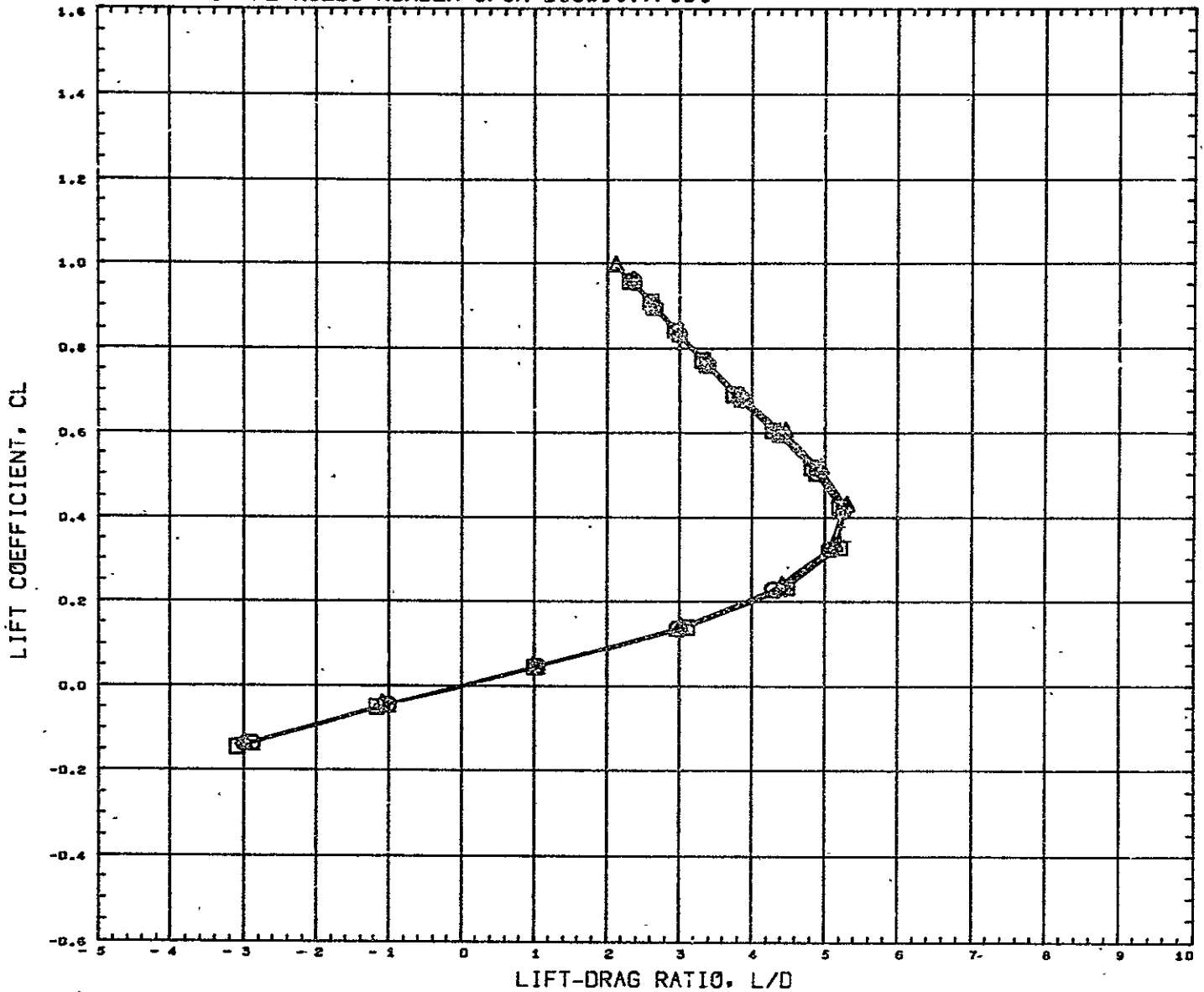
# EFFECTS OF REYNOLDS NUMBER UPON B19W10V7P1C4



DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ACKA56)	○	GDLST 587-D	B19W10V7P1C4 (Q VARIATION)	1.000	0.000	0.000	76,100	REFS	343.8704	SQ. IN
(ACKA57)	△	GDLST 587-D	B19W10V7P1C4 (Q VARIATION)	1.000	0.000	0.000	76,100	REFL	15.0620	IN.
(ACKA58)	◇	GDLST 587-D	B19W10V7P1C4 (Q VARIATION)	1.000	0.000	0.000	102,300	REFB	30.4400	IN.
(ACKA59)	□	GDLST 587-D	B19W10V7P1C4 (Q VARIATION)	1.000	0.000	0.000	154,900	XMRP	33.4360	IN.
								YMRP	0.0000	IN.
								ZMRP	3.9380	IN.
								SCALE	0.0175	

BETA 0.000

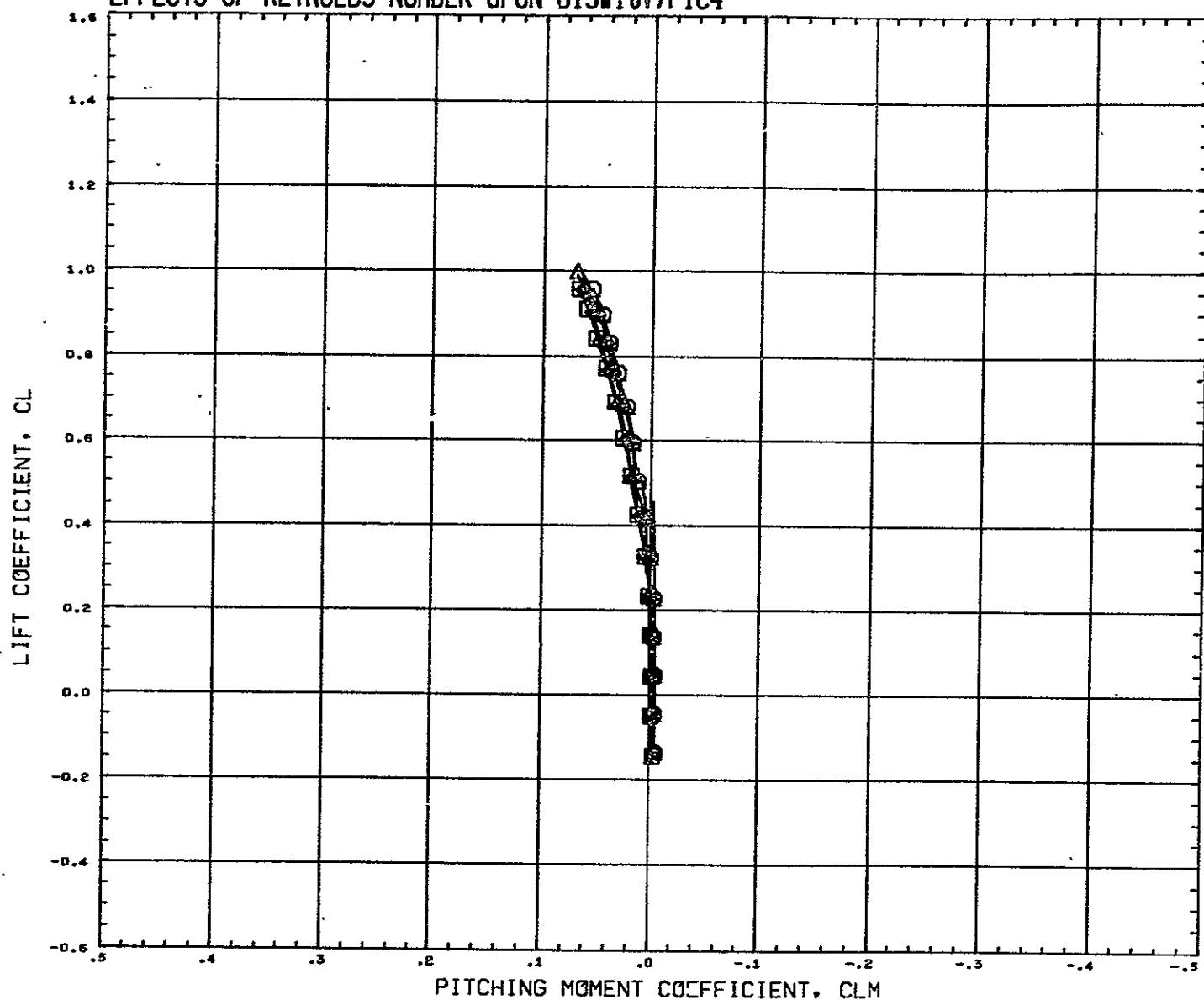
# EFFECTS OF REYNOLDS NUMBER UPON B19W10V7P1C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	(Q VARIATION)	CANARD	CANVTE	CFLAPR	Q	REFERENCE INFORMATION
(ACHA56)	GDLST 587-0 B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	57.120	REFS 343.8704 SQ. IN
(ACHA57)	GDLST 587-0 B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	78.100	REFL 15.0620 IN.
(ACHA58)	GDLST 587-0 B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	102.300	REFB 30.4400 IN.
(ACHA59)	GDLST 587-0 B19W10V7P1C4	(Q VARIATION)	1.000	0.000	0.000	154.900	XMRF 33.4360 IN.
							YMRF 0.0000 IN.
							ZMRF 3.9360 IN.
							SCALE 0.0175

BETA 0.000

# EFFECTS OF REYNOLDS NUMBER UPON B19W10V7P1C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ACMA56)	GDLST 587-0 B19W10V7P1C4
(ACMA57)	GDLST 587-0 B19W10V7P1C4
(ACMA58)	GDLST 587-0 B19W10V7P1C4
(ACMA59)	GDLST 587-0 B19W10V7P1C4

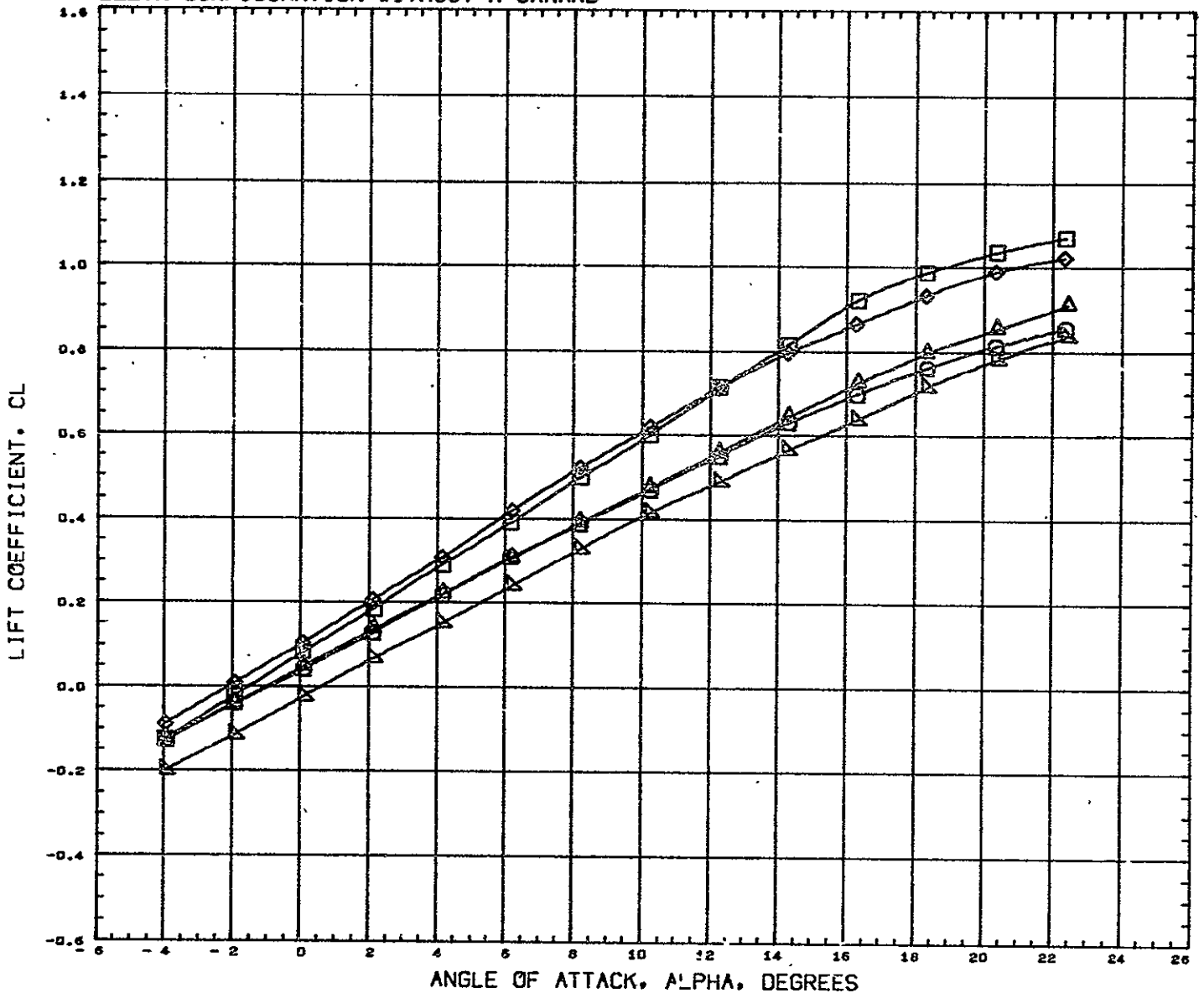
(Q VARIATION)  
(Q VARIATION)  
(Q VARIATION)  
(Q VARIATION)

CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	157
1.000	0.000	0.000	76
1.000	0.000	0.000	102
1.000	0.000	0.000	154

REFERENCE INFORMATION		
REFS	343.8704	50. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

BETA 0.000

# DELTA CONFIGURATION WITHOUT A CANARD



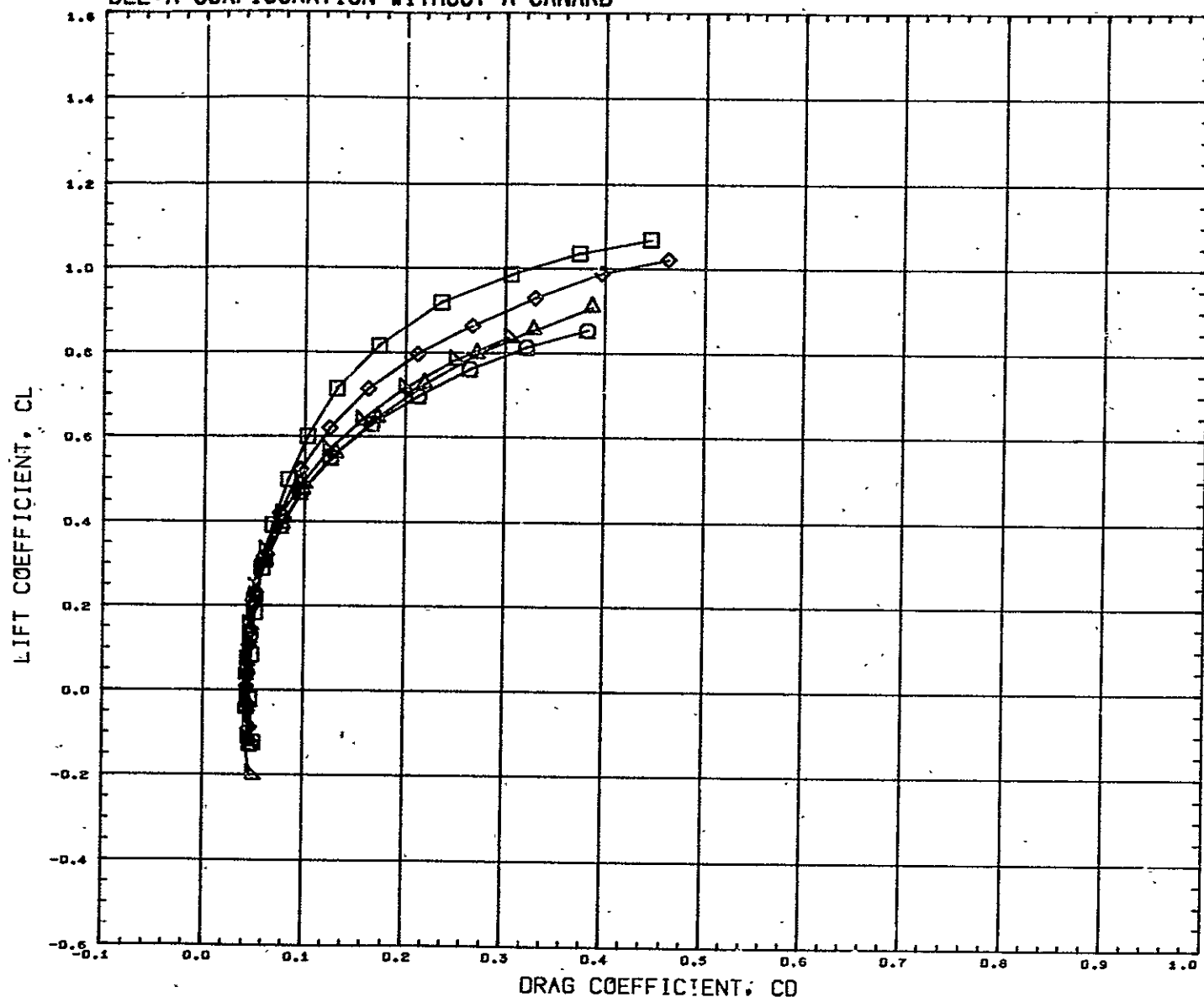
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMA60)	GDLST 587-0 B19W10V7
(ICMA66)	GDLST 587-0 B19W10-3V7
(ACMA67)	GDLST 587-0 B19W10-4V7
(ACMA96)	GDLST 587-0 B19W10-13V7
(ICMA63)	GDLST 587-0 B20W10

INVERTED

ELEVTR	AILRON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.400	REFS 343.8704 SQ. IN.
0.000	0.000	0.000	60.400	REFL 15.0620 IN.
0.000	0.000	0.000	60.400	REFB 30.4400 IN.
0.000	0.000	0.000	60.000	XMRP 33.4360 IN.
0.000	0.000	0.000	60.400	YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# DELTA CONFIGURATION WITHOUT A CANARD



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICHA60)	GDLST 587-0 B19W10V7
(ICHA66)	GDLST 587-0 B19W10-3V7
(ICHA67)	GDLST 587-0 B19W10-4V7
(ACHA96)	GDLST 587-0 B19W10-13V7
(ICHA63)	GDLST 587-0 B20W10

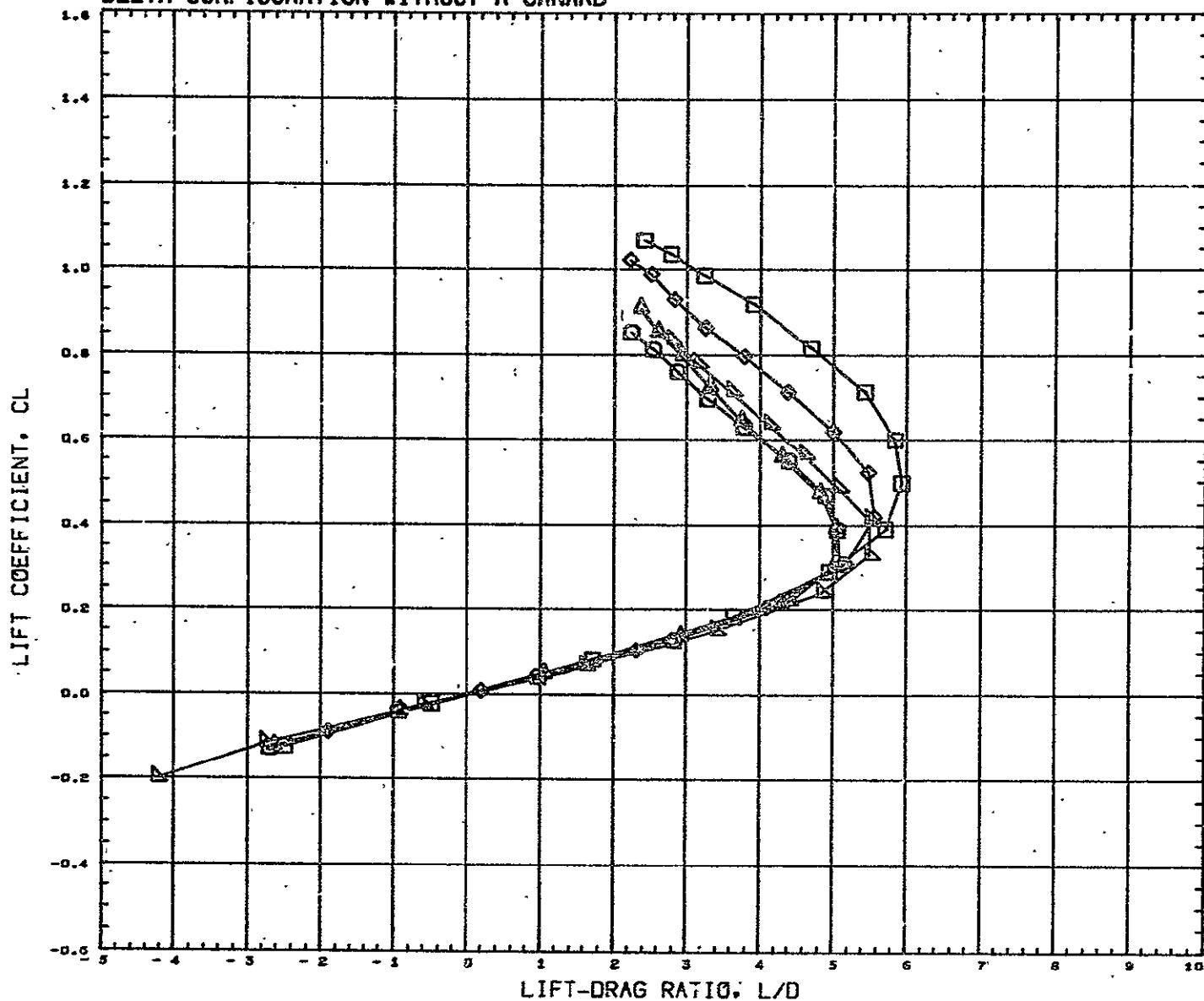
INVERTED

ELEVTR	AILRON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.400	REFS 343.8704 SQ. IN
0.000	0.000	0.000	60.400	REFL 15.0620 IN.
0.000	0.000	0.000	60.400	REFB 30.4400 IN.
0.000	0.000	0.000	60.000	XNRP 33.4360 IN.
0.000	0.000	0.000	60.400	YNRP 0.0000 IN.
				ZNRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000



# DELTA CONFIGURATION WITHOUT A CANARD



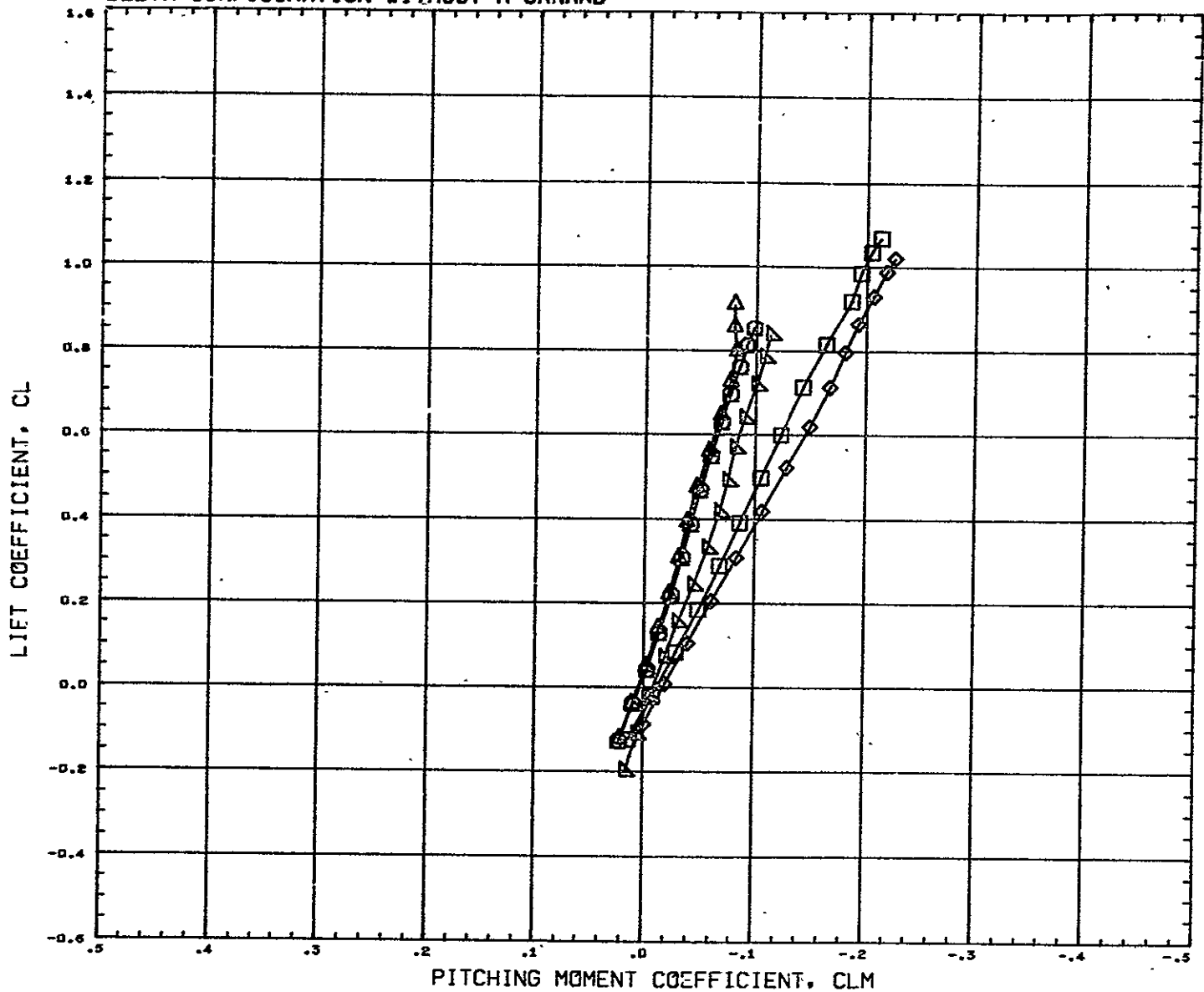
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMA60)	GDLST 587-0 B19W10V7
(ICMA66)	GDLST 587-0 B19W10-3V7
(ICMA67)	GDLST 587-0 B19W10-4V7
(ICMA96)	GDLST 587-0 B19W10-13V7
(ICMA63)	GDLST 587-0 B20W10

INVERTED

ELEVTR	AILRON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.400	REFS 343.6704 SQ. IN
0.000	0.000	0.000	60.400	REFL 15.0620 IN.
0.000	0.000	0.000	60.400	REFS 30.4400 IN.
0.000	0.000	0.000	60.400	XMRP 33.4360 IN.
0.000	0.000	0.000	60.400	YMRP 0.0000 IN.
0.000	0.000	0.000	60.400	ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# DELTA CONFIGURATION WITHOUT A CANARD



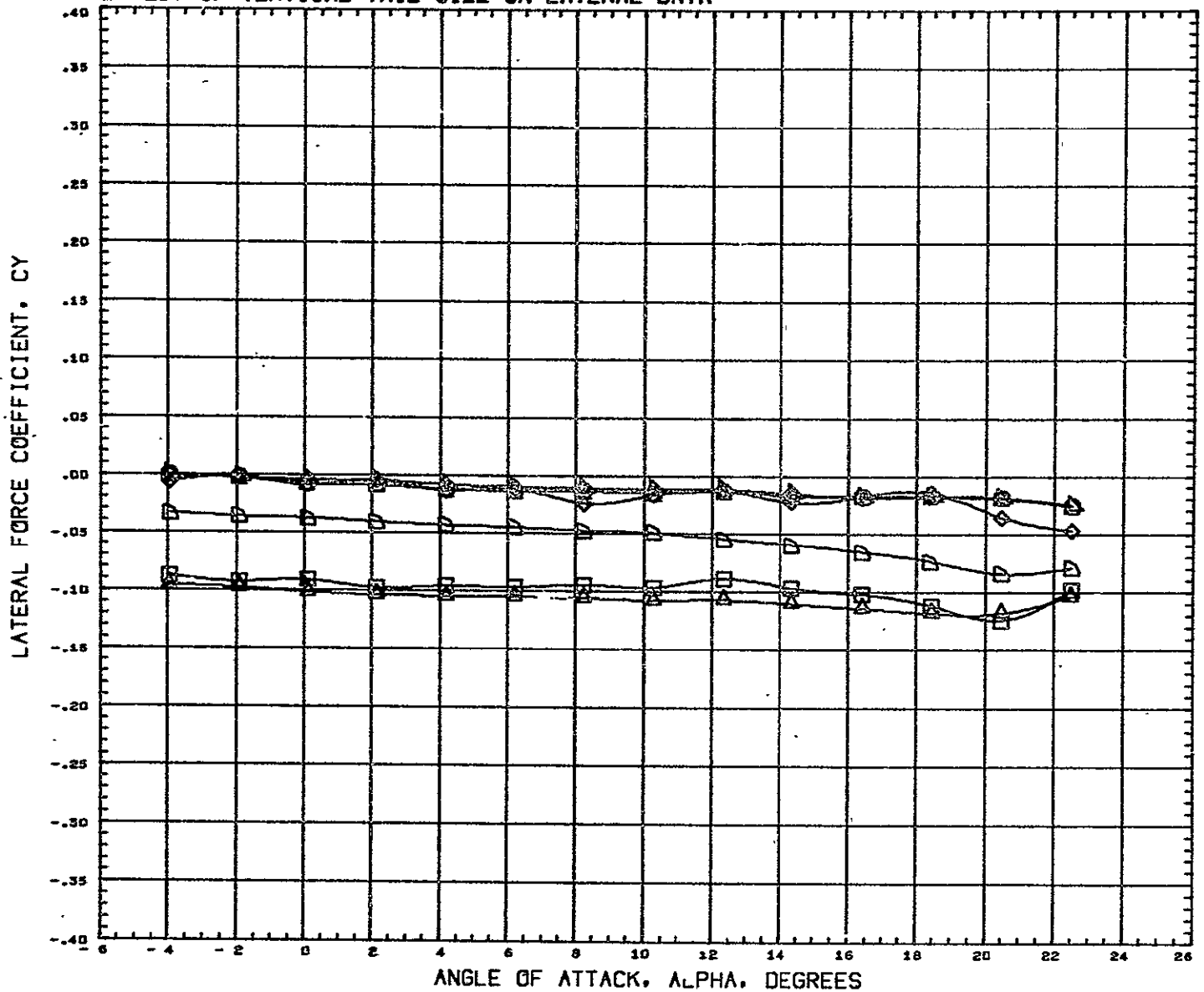
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMA60)	GDLST 587-0 B19W10V7
(ICMA66)	GDLST 587-0 B19W10-3V7
(ICMA67)	GDLST 587-0 B19W10-4V7
(ICMA96)	GDLST 587-0 B19W10-13V7
(ICMA63)	GDLST 587-0 B20W10

INVERTED

ELEVTR	AILRON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.400	REFS 343.8704 SQ. IN
0.000	0.000	0.000	60.400	REFL 15.0620 IN.
0.000	0.000	0.000	60.400	REFB 30.4400 IN.
0.000	0.000	0.000	60.000	XMRF 33.4360 IN.
0.000	0.000	0.000	60.400	YMRF 0.0000 IN.
0.000	0.000	0.000	60.400	ZMRF 3.9380 IN.
				SCALE 0.0175

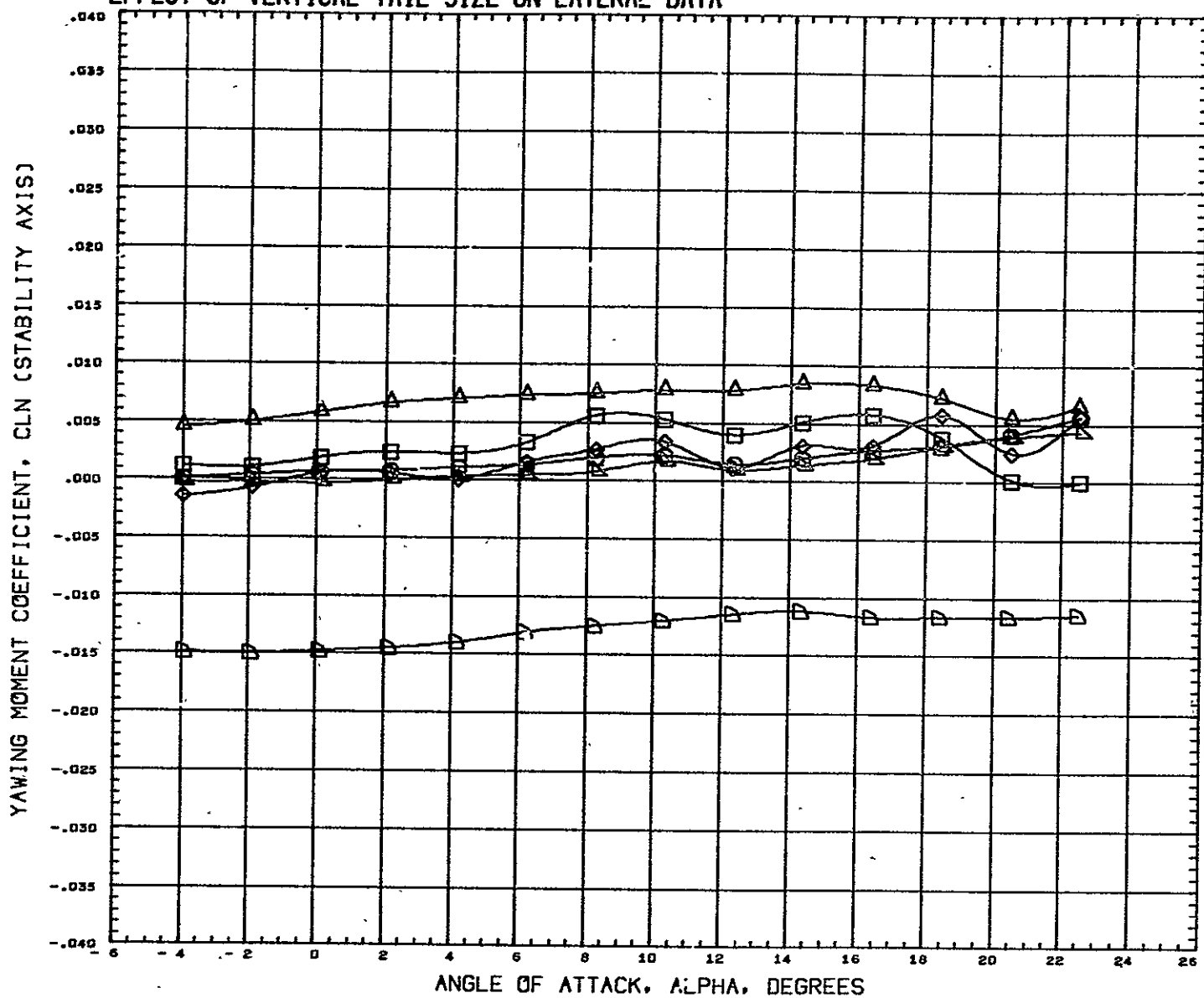
BETA 0.000

# EFFECT OF VERTICAL TAIL SIZE ON LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	Q	REFERENCE INFORMATION
(OCHA86)	GDLST 587-0 B19W10-9V8C7 (POS. 1)	0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(PCHA86)	GDLST 587-0 B19W10-9V8C7 (POS. 1)	4.000	0.000	0.000	60.000	REFL 15.0620 IN.
(OCHA85)	GDLST 587-0 B19W10-10V7C7 (POS. 1)	0.000	0.000	0.000	60.000	REFB 30.4400 IN.
(PCHA85)	GDLST 587-0 B19W10-10V7C7 (POS. 1)	4.000	0.000	0.000	60.000	XMRP 33.4360 IN.
(OCHA87)	GDLST 587-0 B19W10-9C7 (POS. 1)	0.000	0.000	0.000	60.000	YMRP 0.0000 IN.
(PCHA87)	GDLST 587-0 B19W10-9C7 (POS. 1)	4.000	0.000	0.000	60.000	ZMRP 3.9380 IN.
	CANARD 1.000					SCALE 0.0175

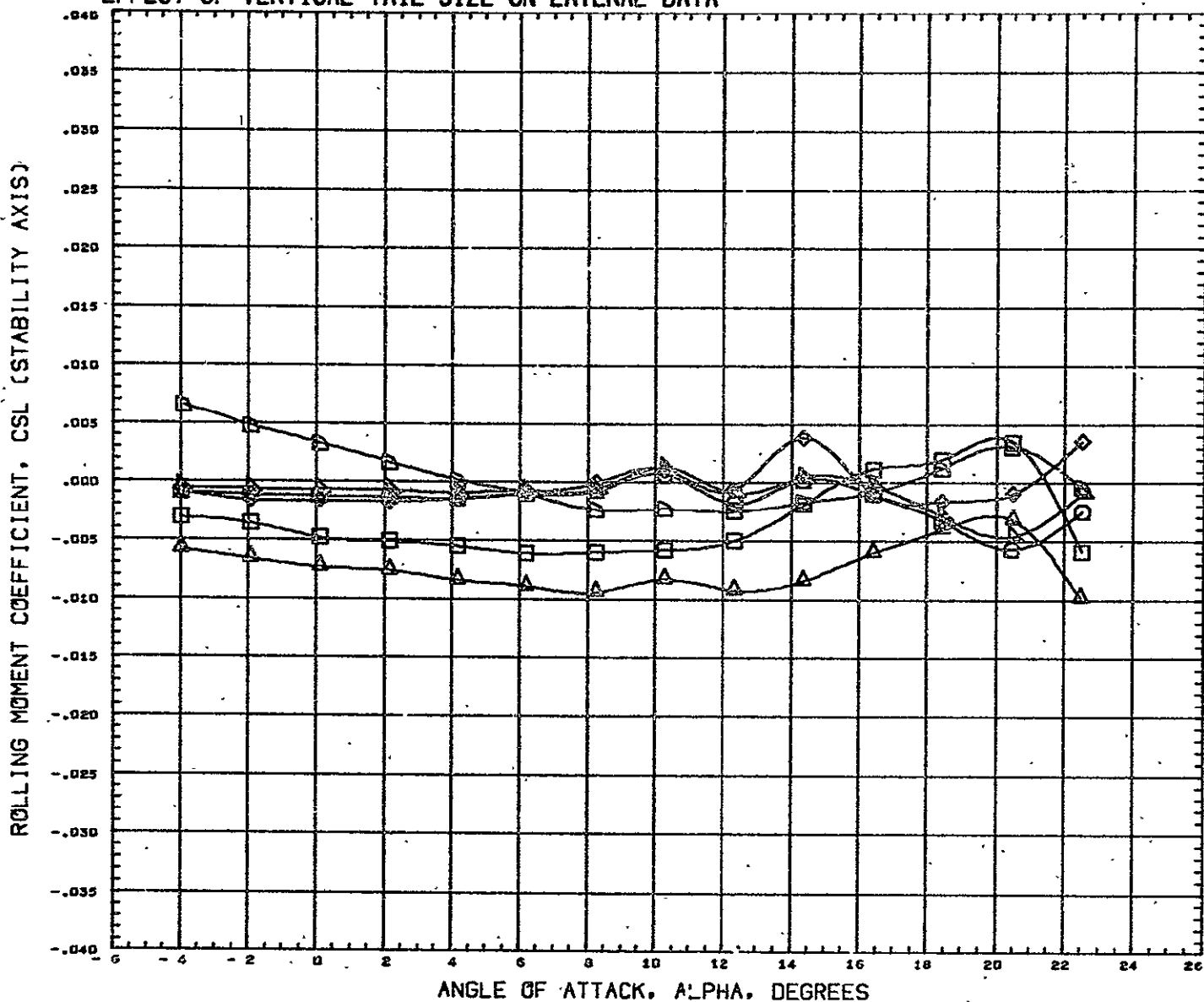
# EFFECT OF VERTICAL TAIL SIZE ON LATERAL DATA



ANGLE OF ATTACK, ALPHA, DEGREES

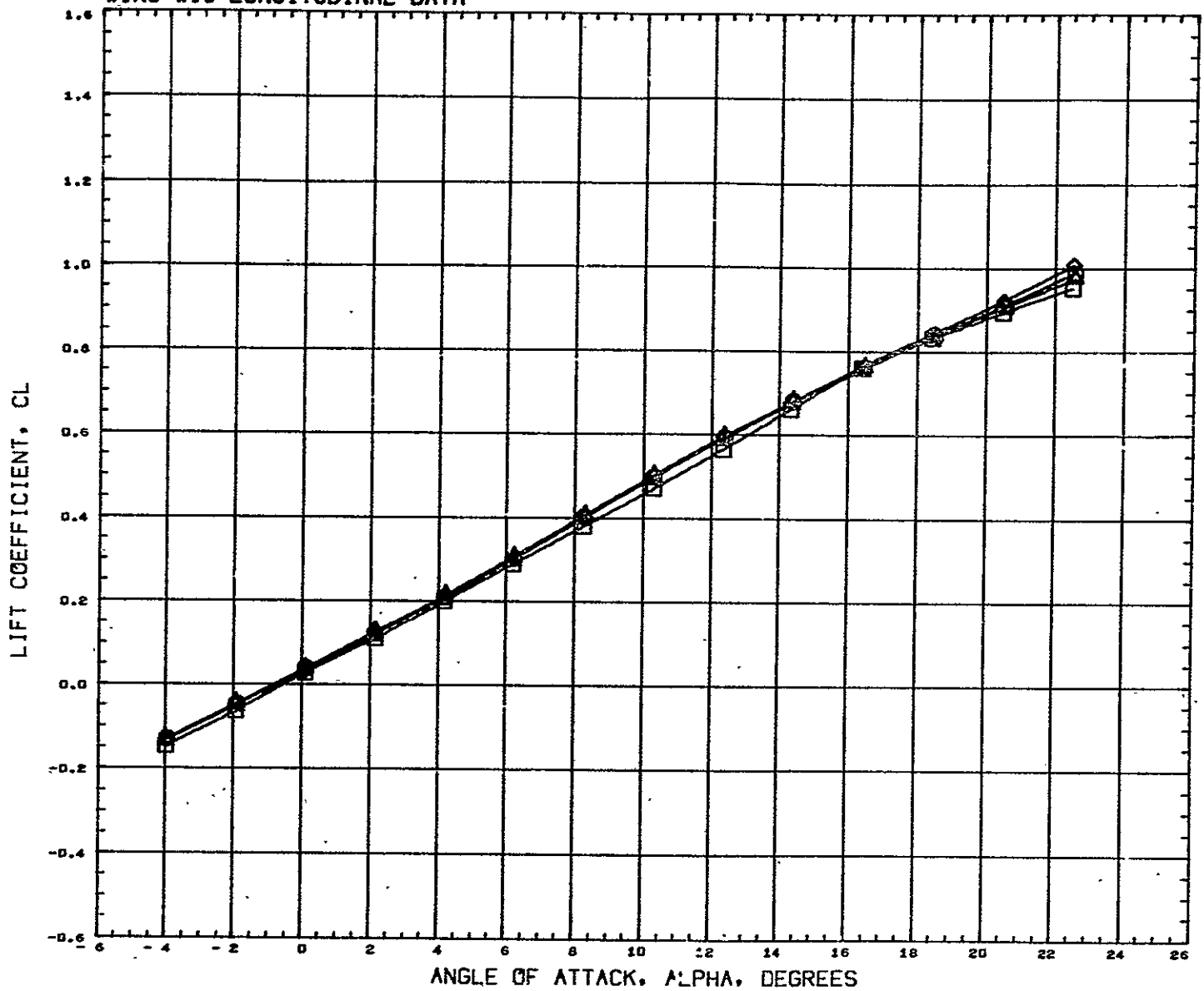
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	Q	REFERENCE INFORMATION		
(OCHA86)	GDLST 587-D B19W10-9V8C7 (POS. 1)	0.000	0.000	0.000	11.500	REFS	343.8704	SQ. IN
(FCHA86)	GDLST 587-D B19W10-9V8C7 (POS. 1)	4.000	0.000	0.000	60.300	REFL	15.0620	IN.
(OCHA85)	GDLST 587-D B19W10-10V7C7 (POS. 1)	0.000	0.000	0.000	60.000	REFB	30.4400	IN.
(FCHA85)	GDLST 587-D B19W10-10V7C7 (POS. 1)	4.000	0.000	0.000	60.000	XNRP	33.4360	IN.
(OCHA87)	GDLST 587-D B19W10-9C7 (POS. 1)	0.000	0.000	0.000	60.000	YHRP	0.0000	IN.
(FCHA87)	GDLST 587-D B19W10-9C7 (POS. 1)	4.000	0.000	0.000	60.000	ZHRP	3.9380	IN.
							SCALE	0.6175
CANARD 1.000								

# EFFECT OF VERTICAL TAIL SIZE ON LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	Q	REFERENCE INFORMATION
(OCMA86)	GDLST 587-0 B19W10-9V8C7 (POS. 1)	0.000	0.000	0.000	60.000	REFS 343.8704 SQ. IN
(PCMA86)	GDLST 587-0 B19W10-9V8C7 (POS. 1)	4.000	0.000	0.000	60.000	REFL 15.0620 IN.
(OCMA85)	GDLST 587-0 B19W10-10V7C7 (POS. 1)	0.000	0.000	0.000	60.000	REFB 30.4400 IN.
(PCMA85)	GDLST 587-0 B19W10-10V7C7 (POS. 1)	4.000	0.000	0.000	60.000	XMRP 33.4360 IN.
(OCMA87)	GDLST 587-0 B19W10-9C7 (POS. 1)	0.000	0.000	0.000	60.000	YMRP 0.0000 IN.
(PCMA87)	GDLST 587-0 B19W10-9C7 (POS. 1)	4.000	0.000	0.000	60.000	ZMRP 3.9380 IN.
CANARD	1.000					SCALE 0.0175

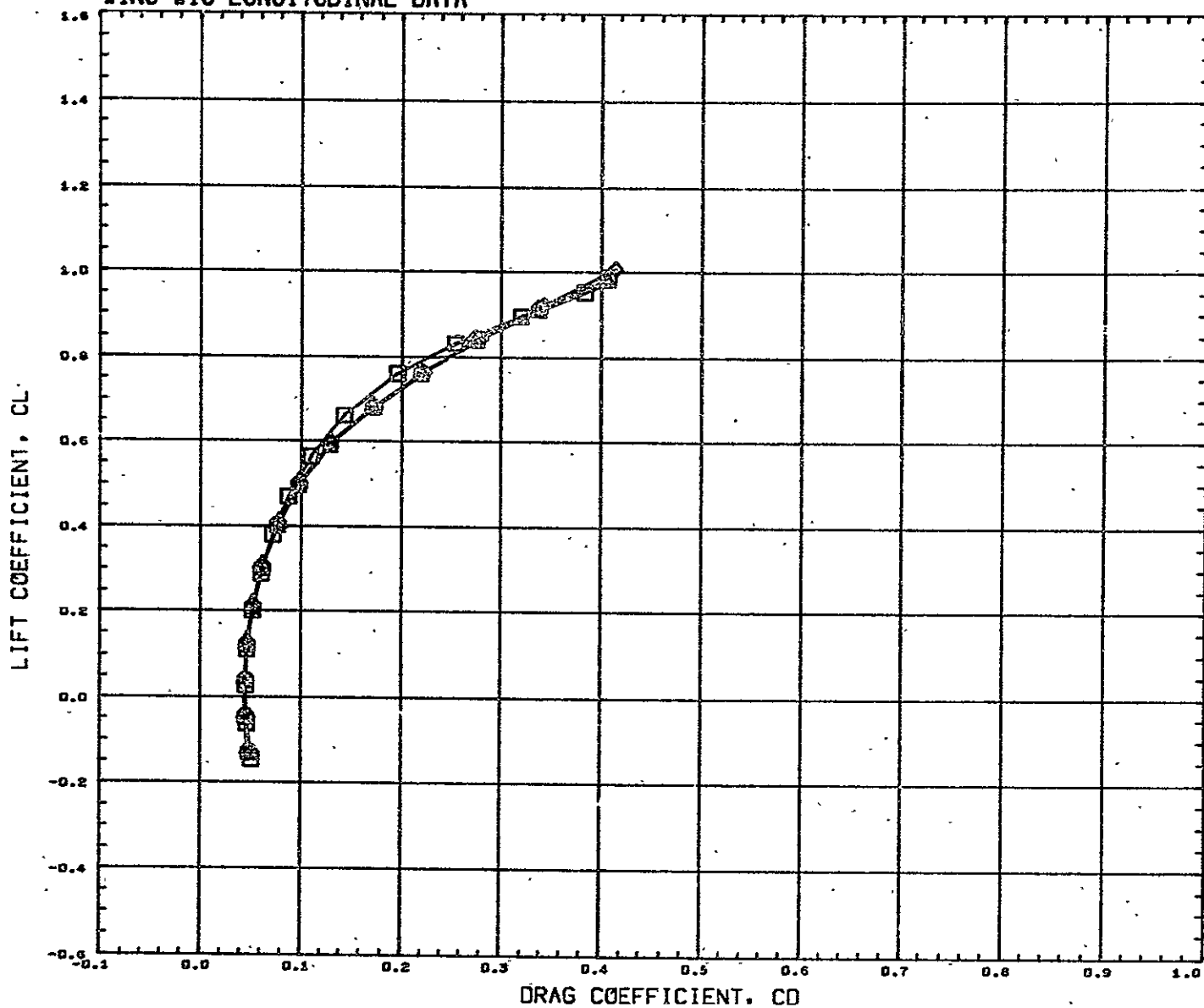
# WING W13 LONGITUDINAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION	
(OCMB01)	GDLST 587-0 819W13V7C4	0.000	1.000	0.000	0.000	REFS	339.1204 SQ. IN
(PCMB01)	GDLST 587-0 819W13V7C4	0.000	2.000	0.000	0.000	REFL	15.2460 IN.
(QCMBO1)	GDLST 587-0 819W13V7C4	0.000	8.000	0.000	0.000	REFB	26.8840 IN.
(PCMB04)	GDLST 587-0 819W13-1V7C7 (POS. 1)	0.000	1.000	0.000	0.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

60.400

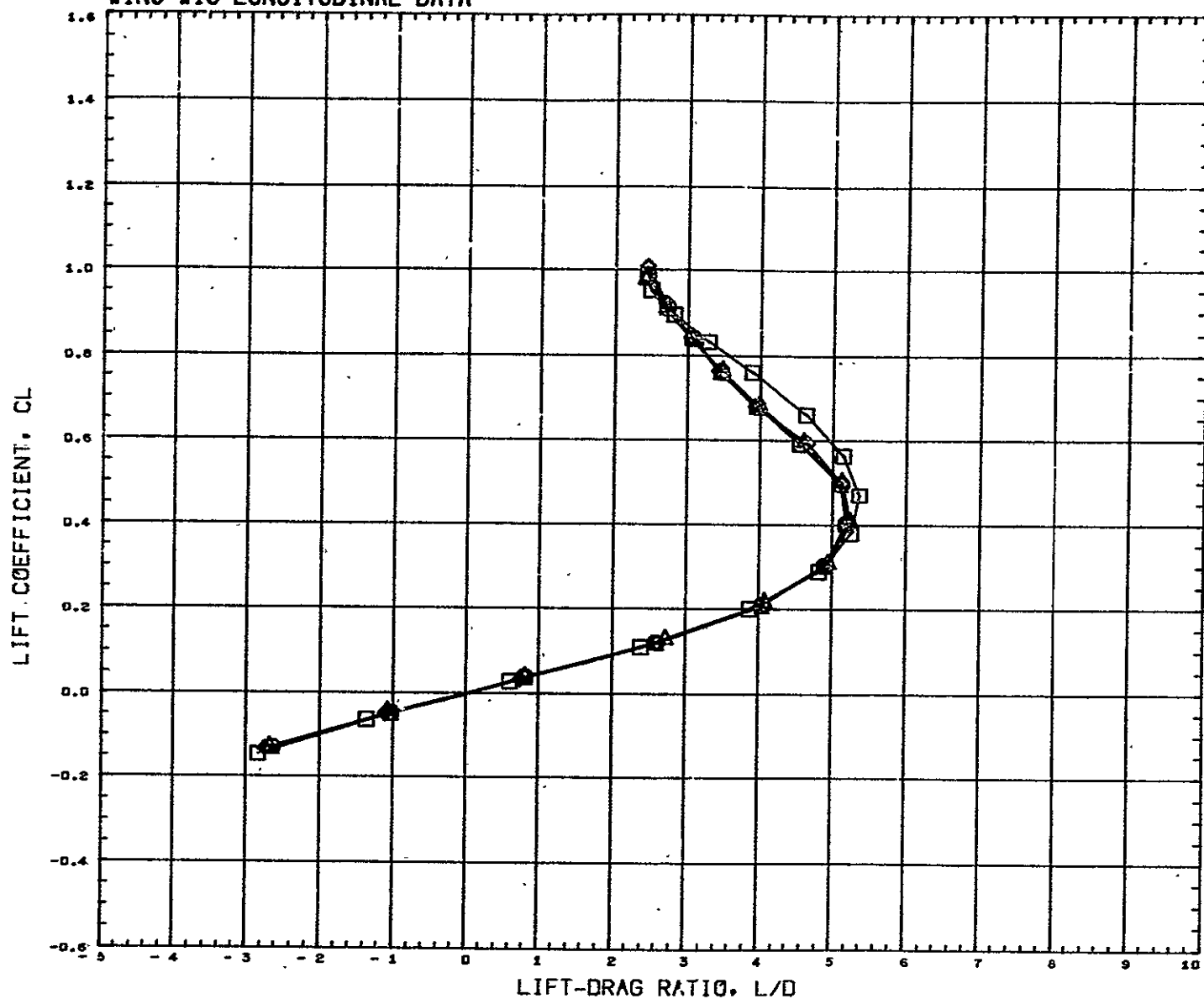
# WING W13 LONGITUDINAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION	
(OCMB01)	GDLST 507-0 B19W13V7C4	0.000	1.000	0.000	0.000	REFS	339.1204 SQ. IN
(PCMB01)	GDLST 507-0 B19W13V7C4	0.000	2.000	0.000	0.000	REFL	15.2460 IN.
(OCMB01)	GDLST 507-0 B19W13V7C4	0.000	8.000	0.000	0.000	REFB	26.8840 IN.
(PCMB04)	GDLST 507-0 B19W13-1V7C7 (POS. 1)	0.000	1.000	0.000	0.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

6 60.400

# WING W13 LONGITUDINAL DATA



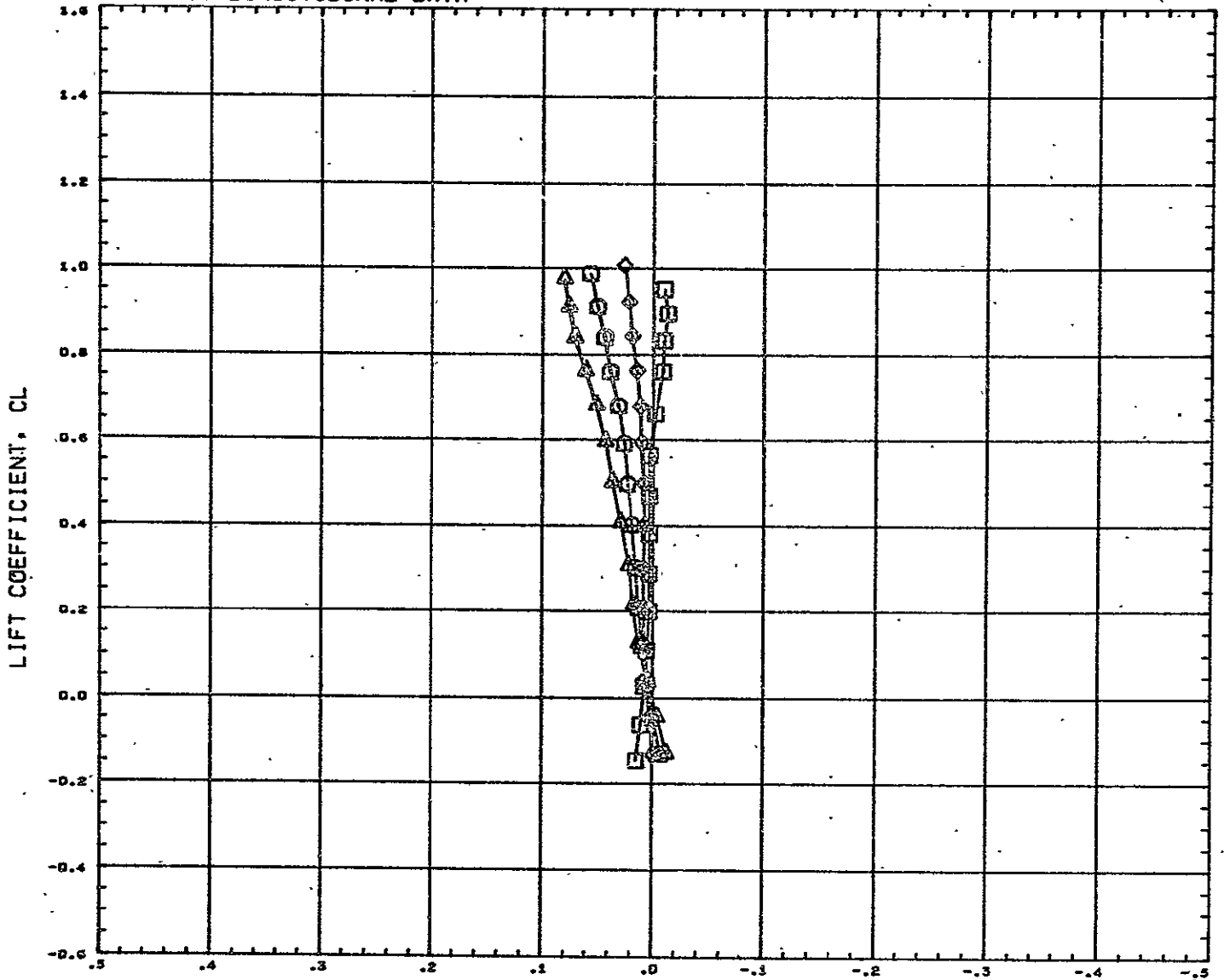
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(OCNB01)	GDLST 587-0 B19W13V7C4
(PCNB01)	GDLST 587-0 B19W13V7C4
(QCNB01)	GDLST 587-0 B19W13V7C4
(PCNB04)	GDLST 587-0 B19W13-1V7C7 (POS. 1)

BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION
0.000	1.000	0.000	1.520	REFS 339.1204' 50. IN
0.000	2.000	0.000	0.000	REFL 15.2460 IN.
0.000	8.000	0.000	0.000	REFB 26.6840 IN.
0.000	1.000	0.000	0.000	XHRP 33.4360 IN.
				YHRP 0.0000 IN.
				ZHRP 3.9380 IN.
				SCALE 0.0175

Q 60.400



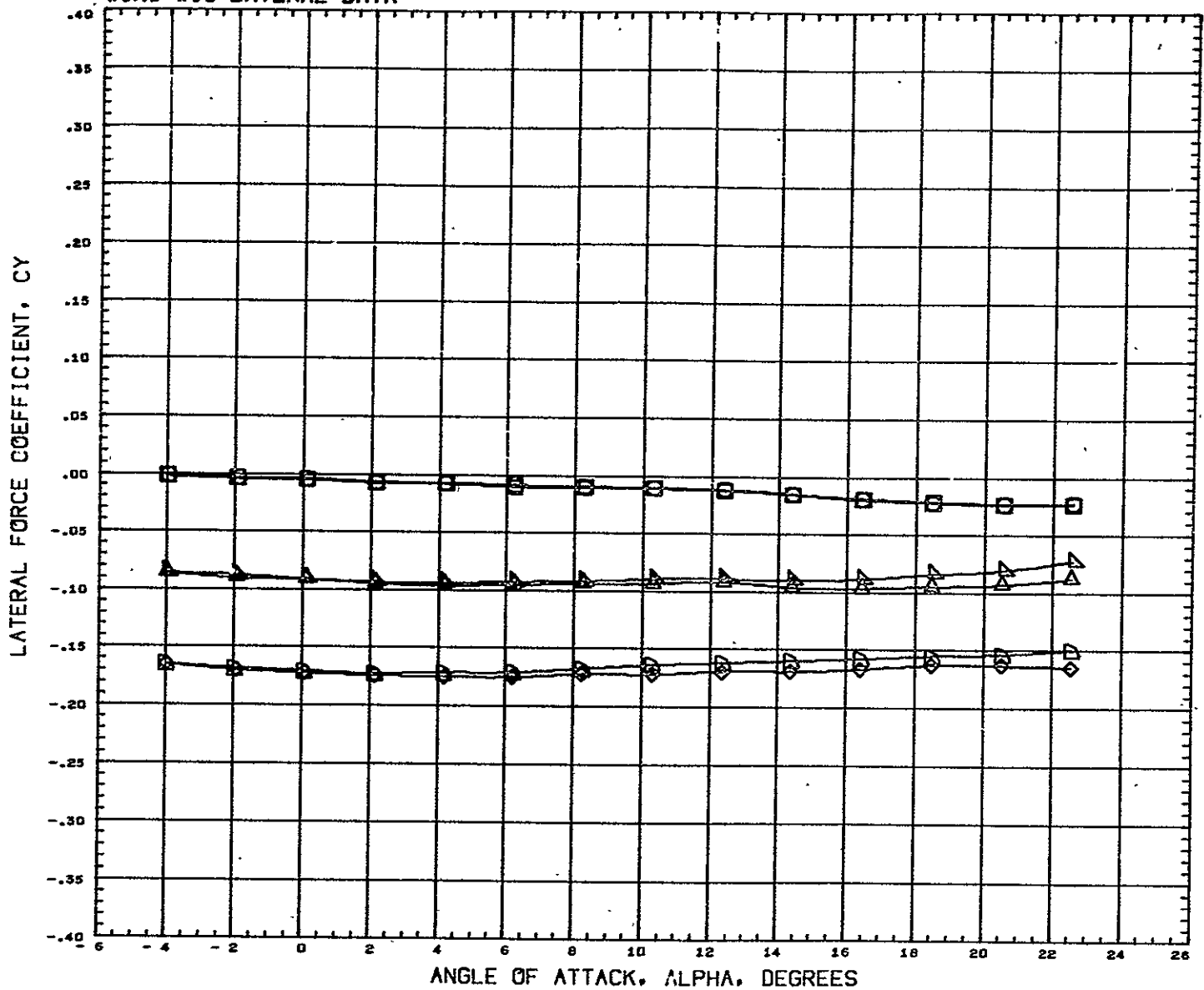
# WING W13 LONGITUDINAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION
(OCMBD1)	GDLST 567-0 B19W13V7C4	0.000	1.000	0.000	1.000	REFS 339.1204 SQ. IN
(PCMBD1)	GDLST 567-0 B19W13V7C4	0.000	2.000	0.000	0.000	REFL 15.2460 IN.
(QCMBD1)	GDLST 567-0 B19W13V7C4	0.000	8.000	0.000	0.000	REFB 26.8640 IN.
(PCMBD4)	GDLST 567-0 B19W13-1V7C7 (POS. 1)	0.000	1.000	0.000	0.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.6175

Q 60.400

# WING W13 LATERAL DATA



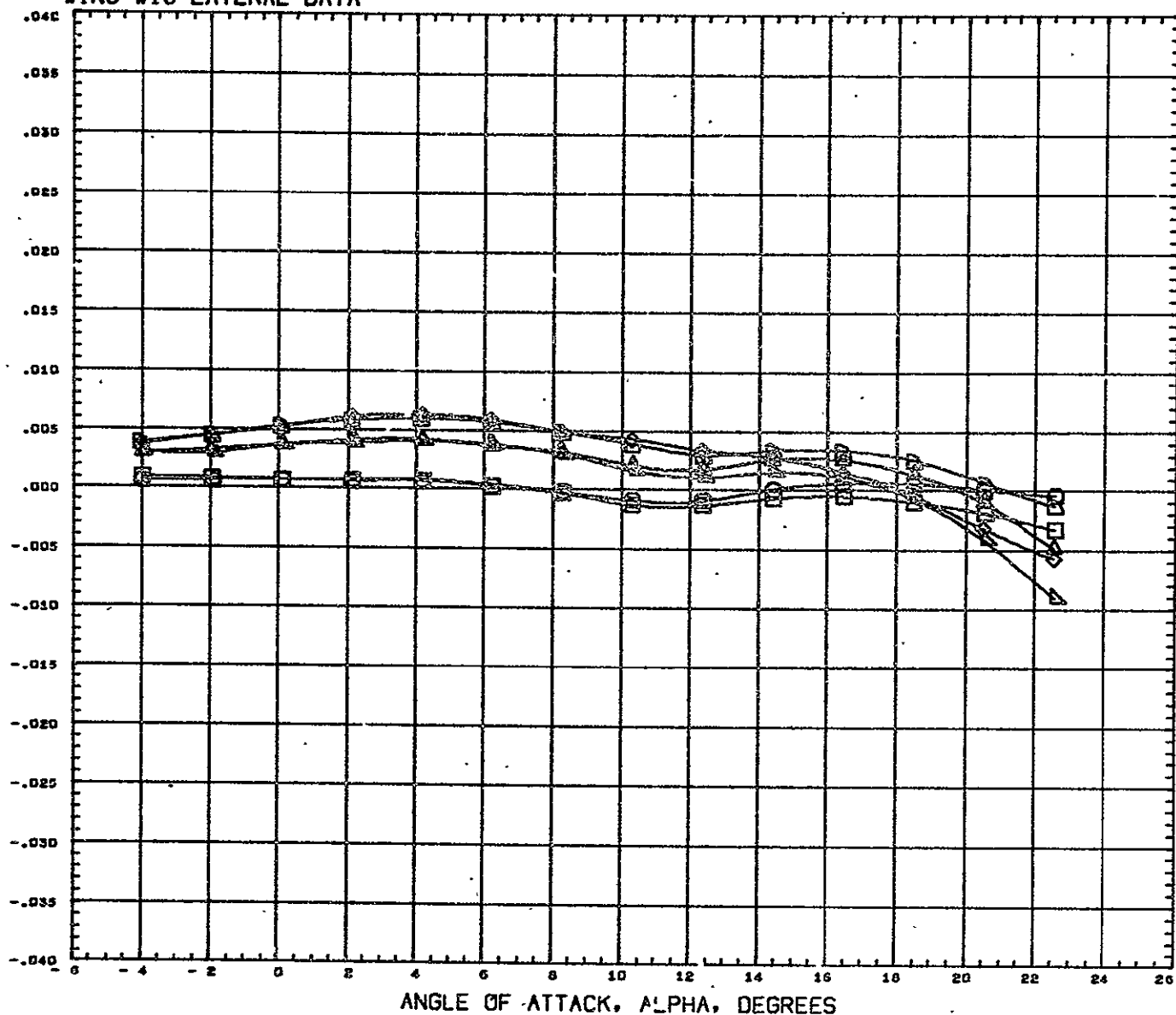
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (OCNB01) GDLST 587-0 B19W13V7C4  
 (OCNB02) GDLST 587-0 B19W13V7C4  
 (OCNB03) GDLST 587-0 B19W13V7C4  
 (PCNB01) GDLST 587-0 B19W13V7C4  
 (PCNB02) GDLST 587-0 B19W13V7C4  
 (PCNB03) GDLST 587-0 B19W13V7C4

BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION
0.000	1.000	0.000	0.000	REFS 339.1204 SE. IN
4.000	1.000	0.000	0.000	REFL 15.2460 IN.
8.000	1.000	0.000	0.000	REFB 26.8840 IN.
0.000	2.000	0.000	0.000	XMRP 33.4360 IN.
4.000	2.000	0.000	0.000	YMRP 0.0000 IN.
8.000	2.000	0.000	0.000	ZMRP 3.9380 IN.
				SCALE 0.0175

60.400

# WING W13 LATERAL DATA

YAWING MOMENT COEFFICIENT, CLN (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(OCNB01)	GDLST 587-0 B19W13V7C4
(OCNB02)	GDLST 587-0 B19W13V7C4
(OCNB03)	GDLST 587-0 B19W13V7C4
(PCNB01)	GDLST 587-0 B19W13V7C4
(PCNB02)	GDLST 587-0 B19W13V7C4
(PCNB03)	GDLST 587-0 B19W13V7C4

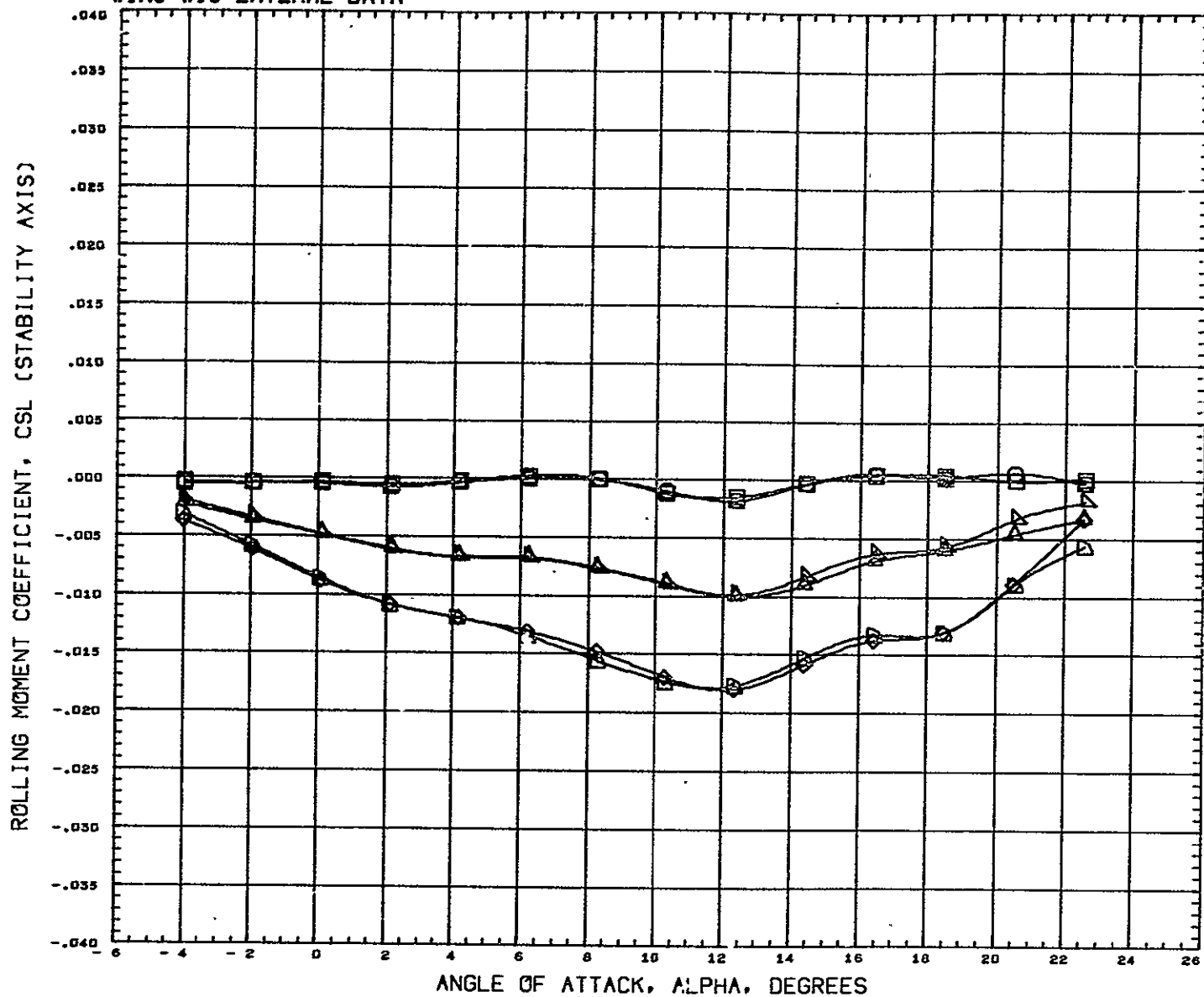
0.0000

60.400

ANGLE OF ATTACK, ALPHA, DEGREES

BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	1.000	0.000	0.000	REFS	339.1204 SQ. IN.
4.000	1.000	0.000	0.000	REFL	15.2460 IN.
8.000	1.000	0.000	0.000	REFB	26.8840 IN.
0.000	2.000	0.000	0.000	XMRP	33.4360 IN.
4.000	2.000	0.000	0.000	YMRP	0.0000 IN.
8.000	2.000	0.000	0.000	ZMRP	3.9380 IN.
				SCALE	0.0175

# WING W13 LATERAL DATA



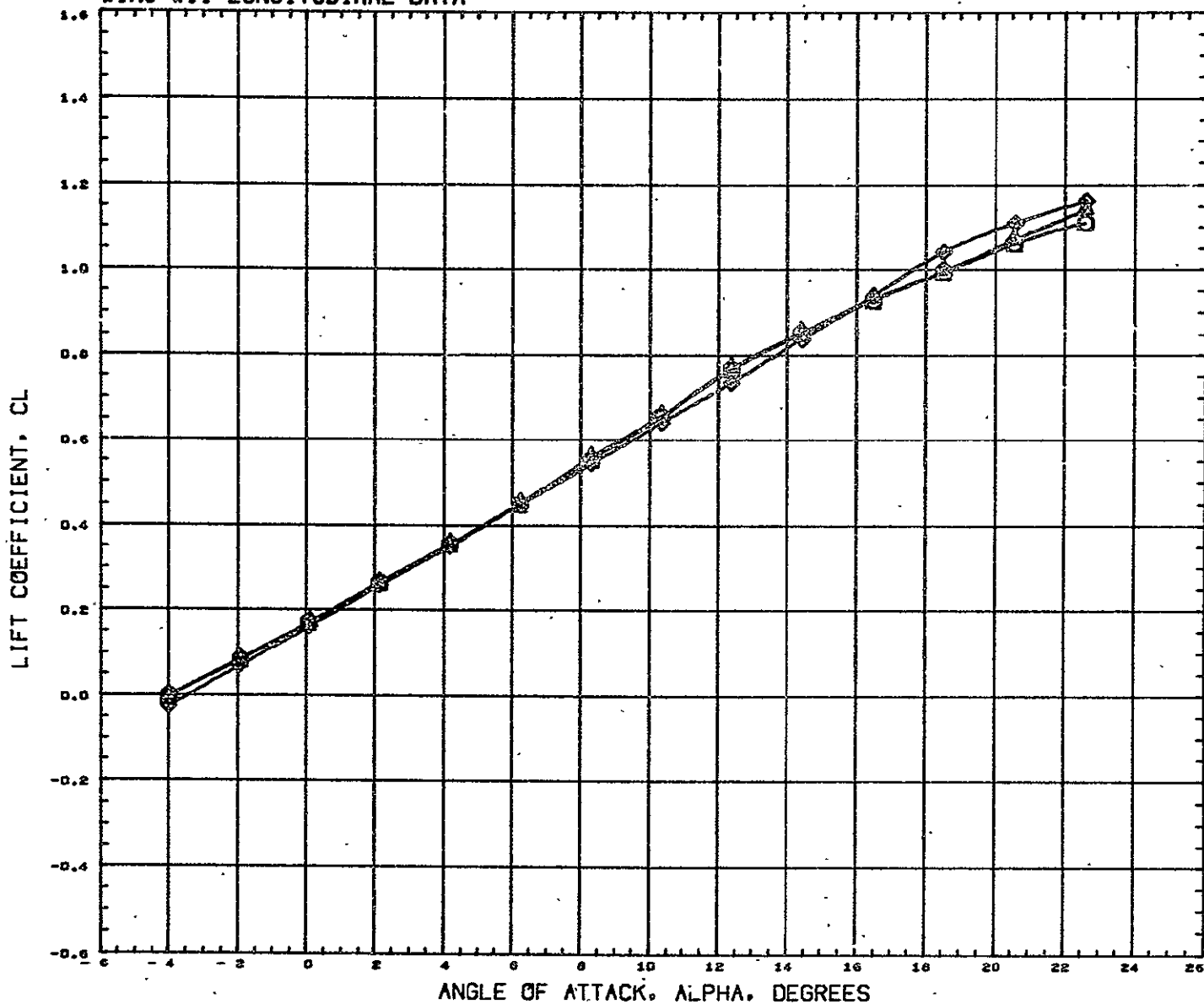
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(OCHB01)	GDLST 587-0 B19W13V7C4
(OCHB02)	GDLST 587-0 B19W13V7C4
(OCHB03)	GDLST 587-0 B19W13V7C4
(PCMB01)	GDLST 587-0 B19W13V7C4
(PCMB02)	GDLST 587-0 B19W13V7C4
(PCMB03)	GDLST 587-0 B19W13V7C4

q

60.400

BETA	CANARD	AILRON	RUDDER	REFERENCE INFORMATION
0.000	1.000	0.000	0.000	REFS 339.1204 SQ. IN
4.000	1.000	0.000	0.000	REFL 15.2460 IN.
8.000	1.000	0.000	0.000	REFB 26.8840 IN.
0.000	2.000	0.000	0.000	XMRP 33.4360 IN.
4.000	2.000	0.000	0.000	YMRP 0.0000 IN.
8.000	2.000	0.000	0.000	ZMRP 3.9380 IN.
				SCALE 0.0175

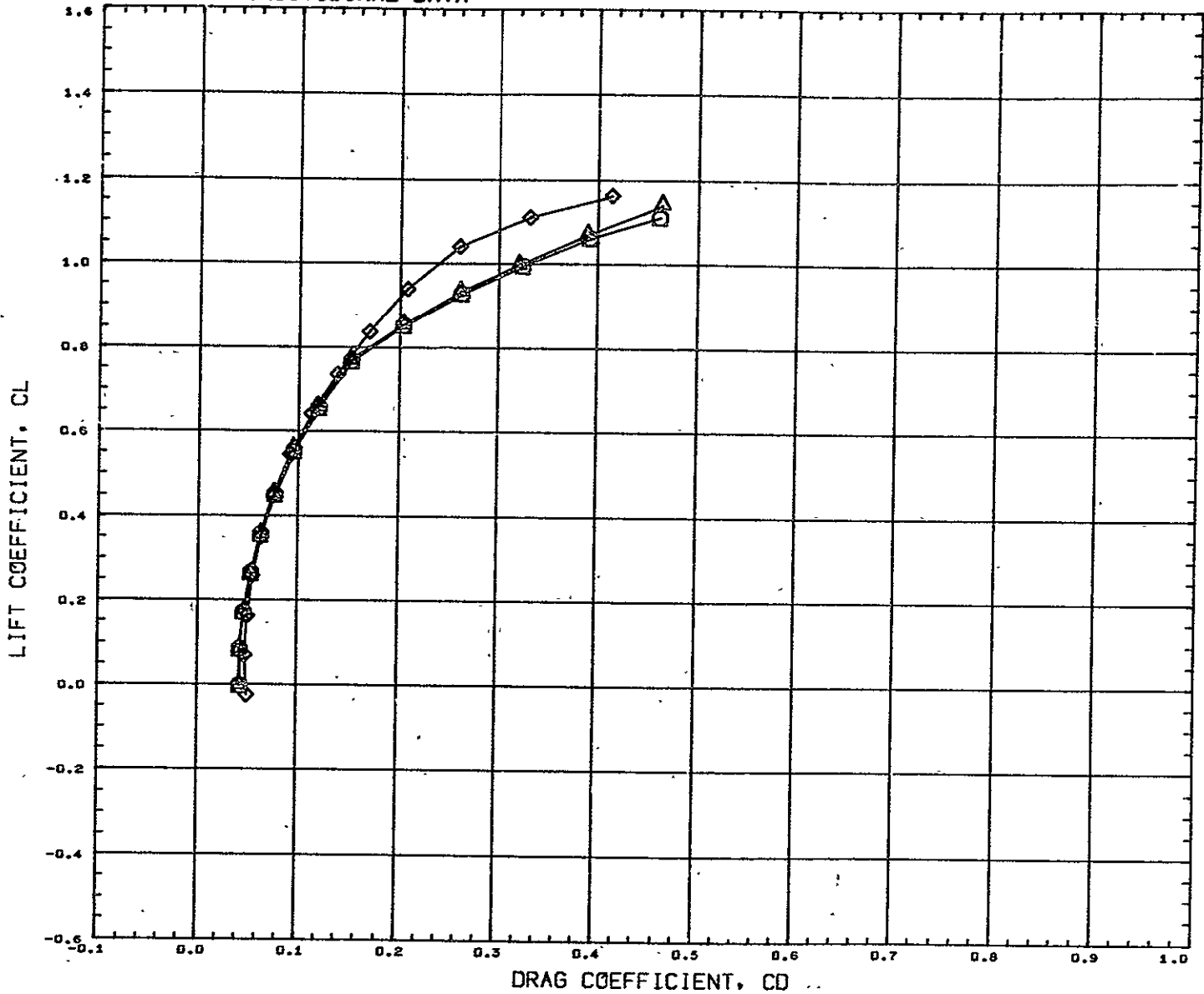
# WING W11 LONGITUDINAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION	
(ICMC01)	GDLST 587-D B19W11V7P1C4 (POS. 1)	1.000	0.000	0.000	3.000	REFS	379.9004 SQ. IN
(ICMC02)	GDLST 587-D B19W11V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	15.5390 IN.
(ICMC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFB	28.9800 IN.
						XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9380 IN.
						SCALE	0.0175

BZTA 0.000

# WING W11 LONGITUDINAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMC01)	GDLST 587-D B19W11V7P1C4 (POS. 1)
(ICMC02)	GDLST 587-D B19W11V7C4 (POS. 1)
(ICMC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)

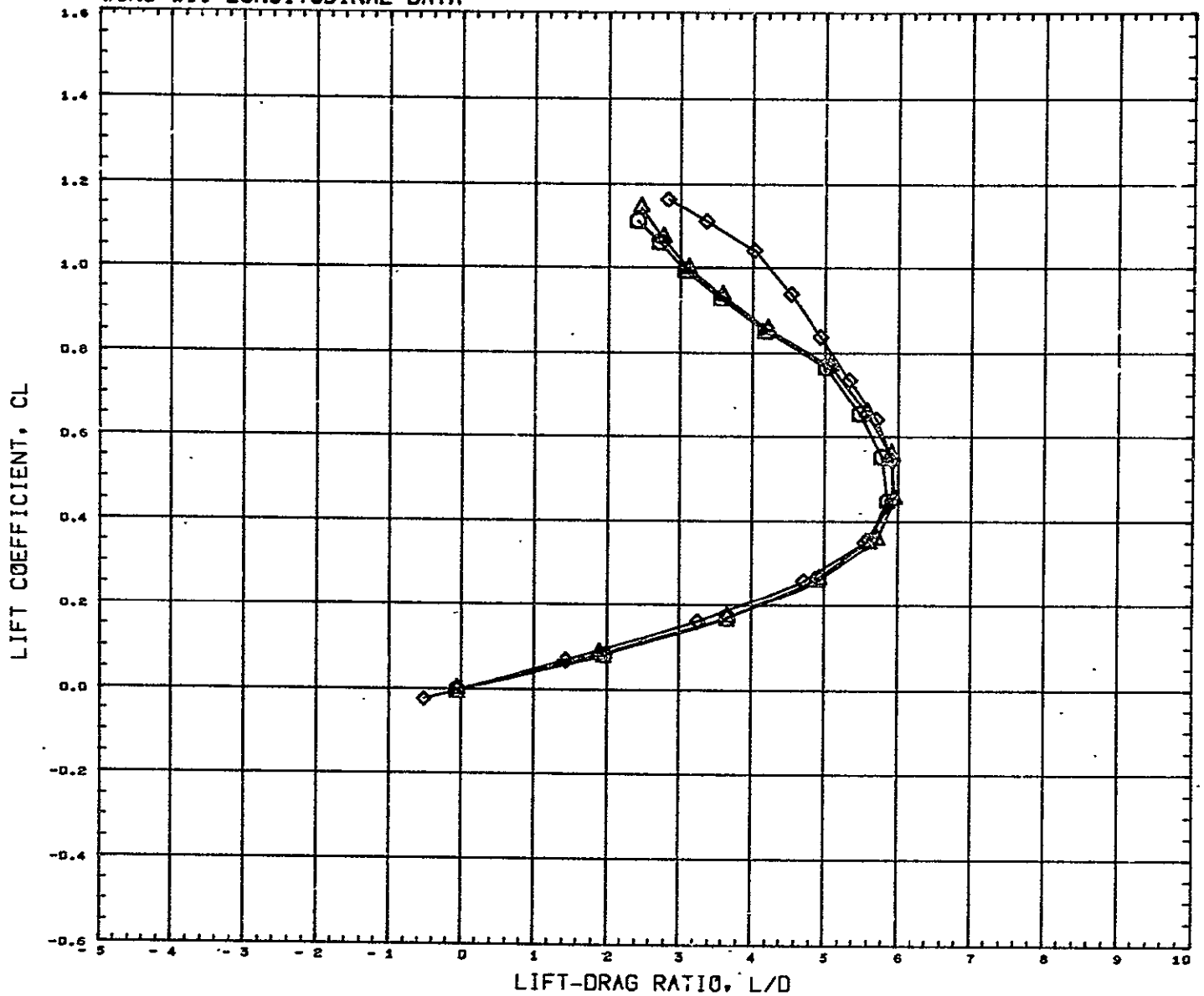
DRAG COEFFICIENT, CD

CANARD	CANVTB	CFLAPR	Q
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000

REFERENCE INFORMATION		
REFS	379.9004	SQ. IN
REFL	15.5390	IN.
REFB	28.9800	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

BETA 0.000

# WING W11 LONGITUDINAL DATA

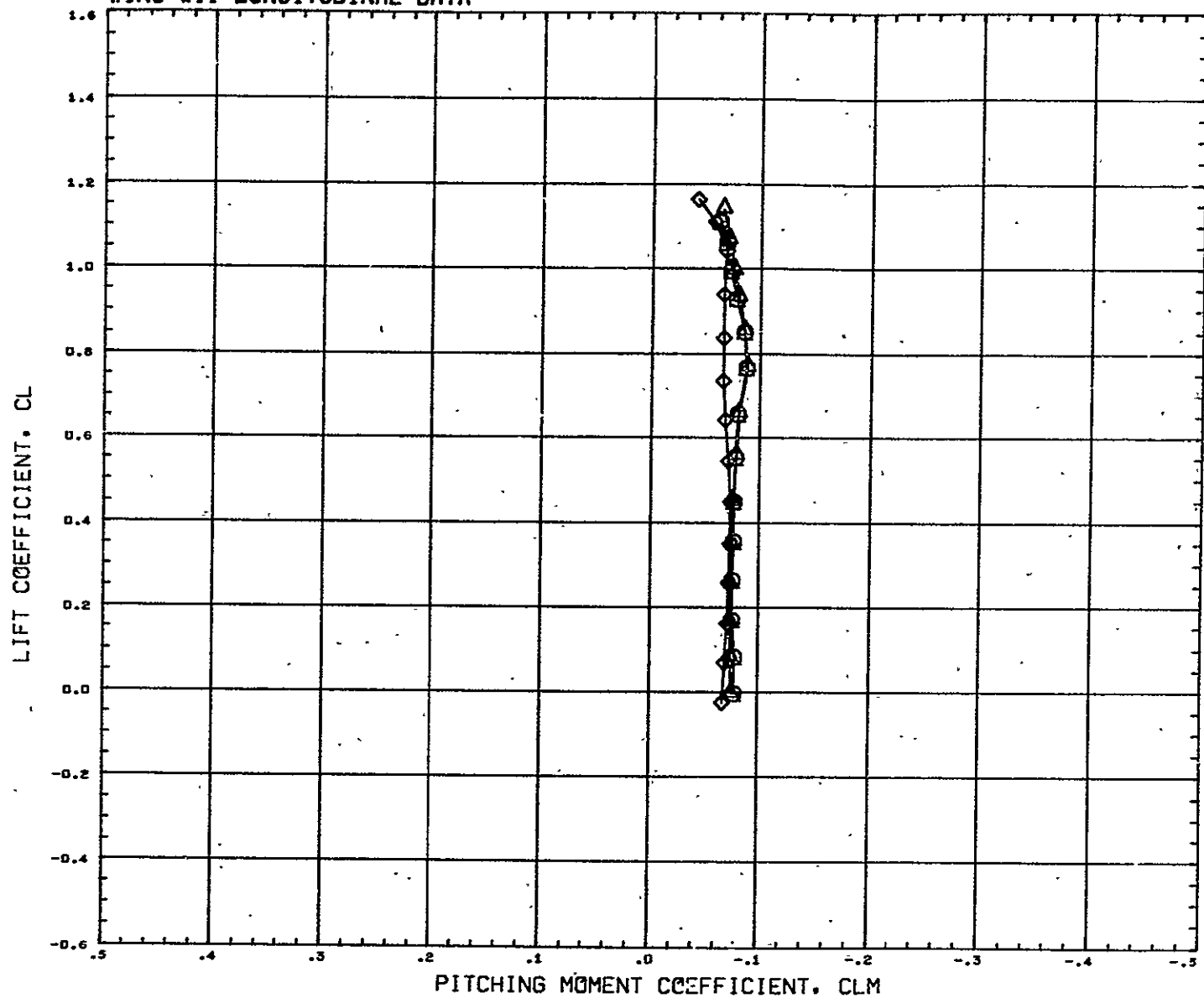


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMC01)	GDLST 587-D B19W11V7F1C4 (POS. 1)
(ICMC02)	GDLST 587-D B19W11V7C4 (POS. 1)
(ICMC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 379.9004 SQ. IN
1.000	0.000	0.000	60.000	REFL 15.5390 IN.
1.000	0.000	0.000	60.000	REFB 28.9800 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA . 0.000

# WING W11 LONGITUDINAL DATA



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ICM01) GDLST 587-D B19W11V7P1C4 (POS. 1)  
 (ICM02) GDLST 587-D B19W11V7C4 (POS. 1)  
 (ICM03) GDLST 587-D B19W11-1V7C4 (POS. 1)

CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 00.000  
 1.000 0.000 0.000 00.000  
 1.000 0.000 0.000 60.000

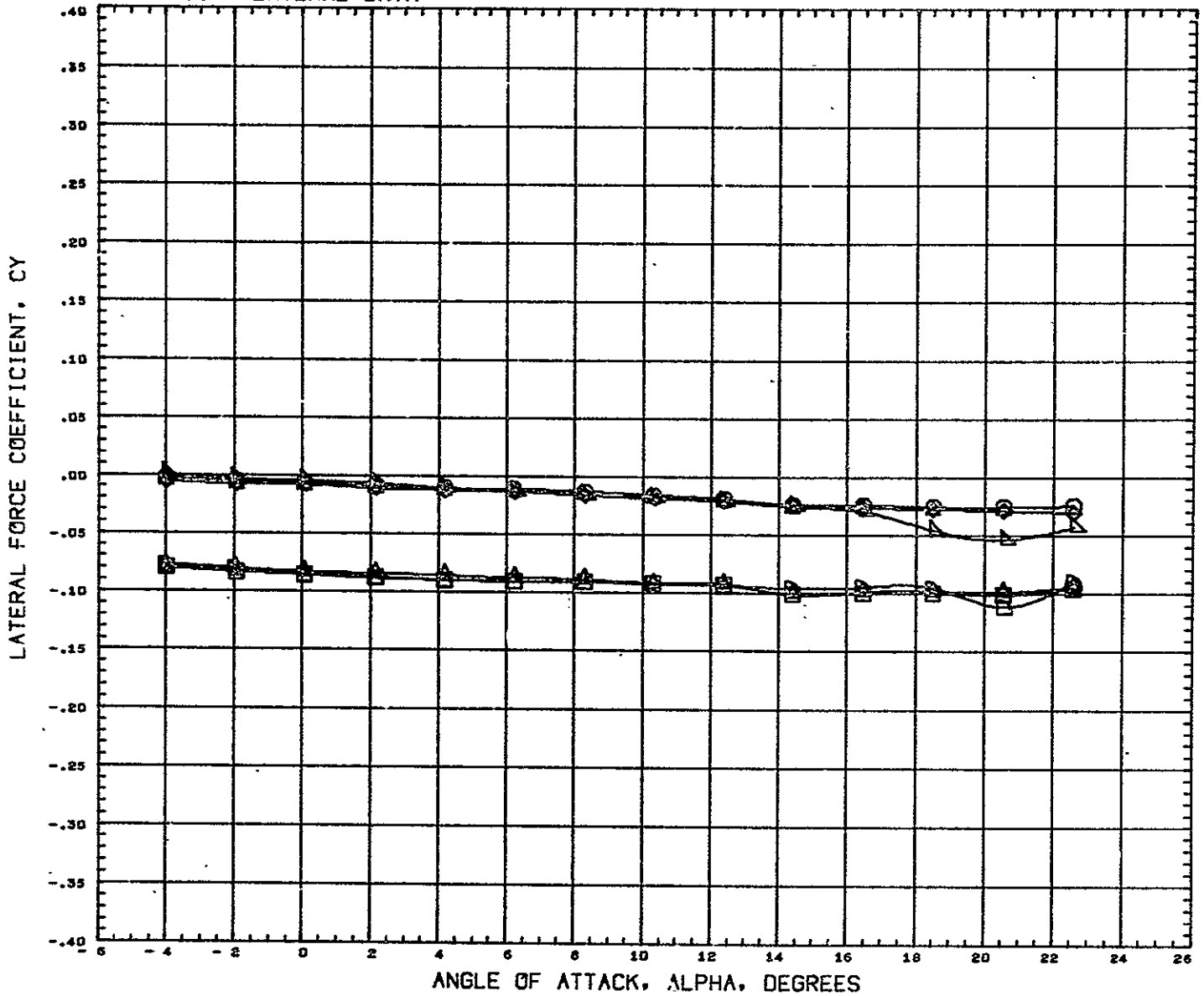
REFERENCE INFORMATION

REFS 379.9004 SQ. IN  
 REFL 15.5390 IN.  
 REFB 28.9800 IN.  
 XMRP 33.4360 IN.  
 YMRP 0.0000 IN.  
 ZMRP 3.9380 IN.  
 SCALE 0.0175

BETA 0.000

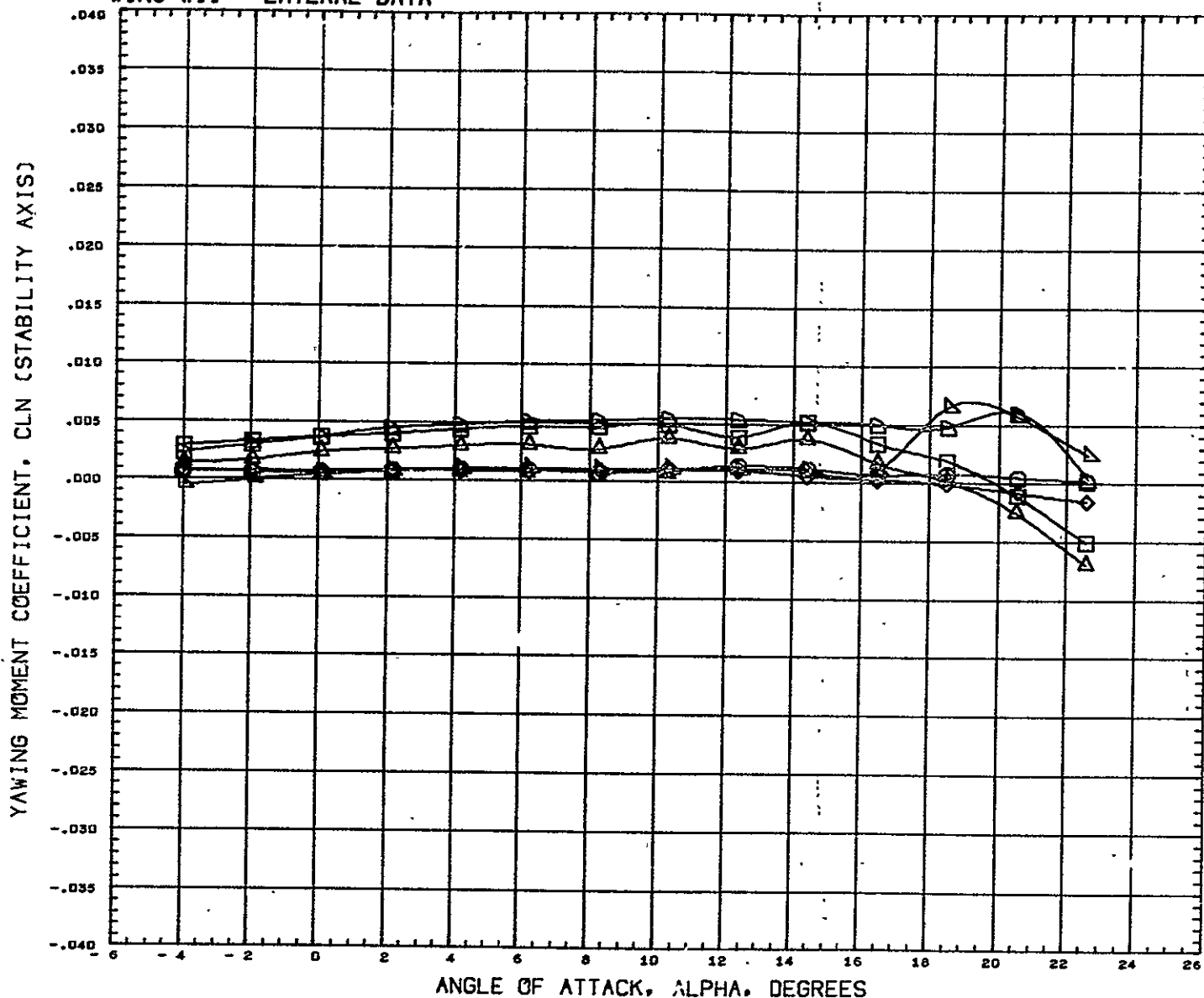


# WING W11 - LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	Q	REFERENCE INFORMATION		
(OCMC01)	GDLST 587-D B19W11V7P1C4 (POS. 1)	0.000	0.000	0.000	60.000	REFS	379.9004	SQ. IN.
(PCMC01)	GDLST 587-D B19W11V7P1C4 (POS. 1)	4.000	0.000	0.000	60.000	REFL	15.5390	IN.
(OCMC02)	GDLST 587-D B19W11V7C4 (POS. 1)	0.000	0.000	0.000	60.000	REFB	28.9800	IN.
(PCMC02)	GDLST 587-D B19W11V7C4 (POS. 1)	4.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(OCMC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	0.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(PCMC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	4.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
CANARD 1.000						SCALE	0.0125	

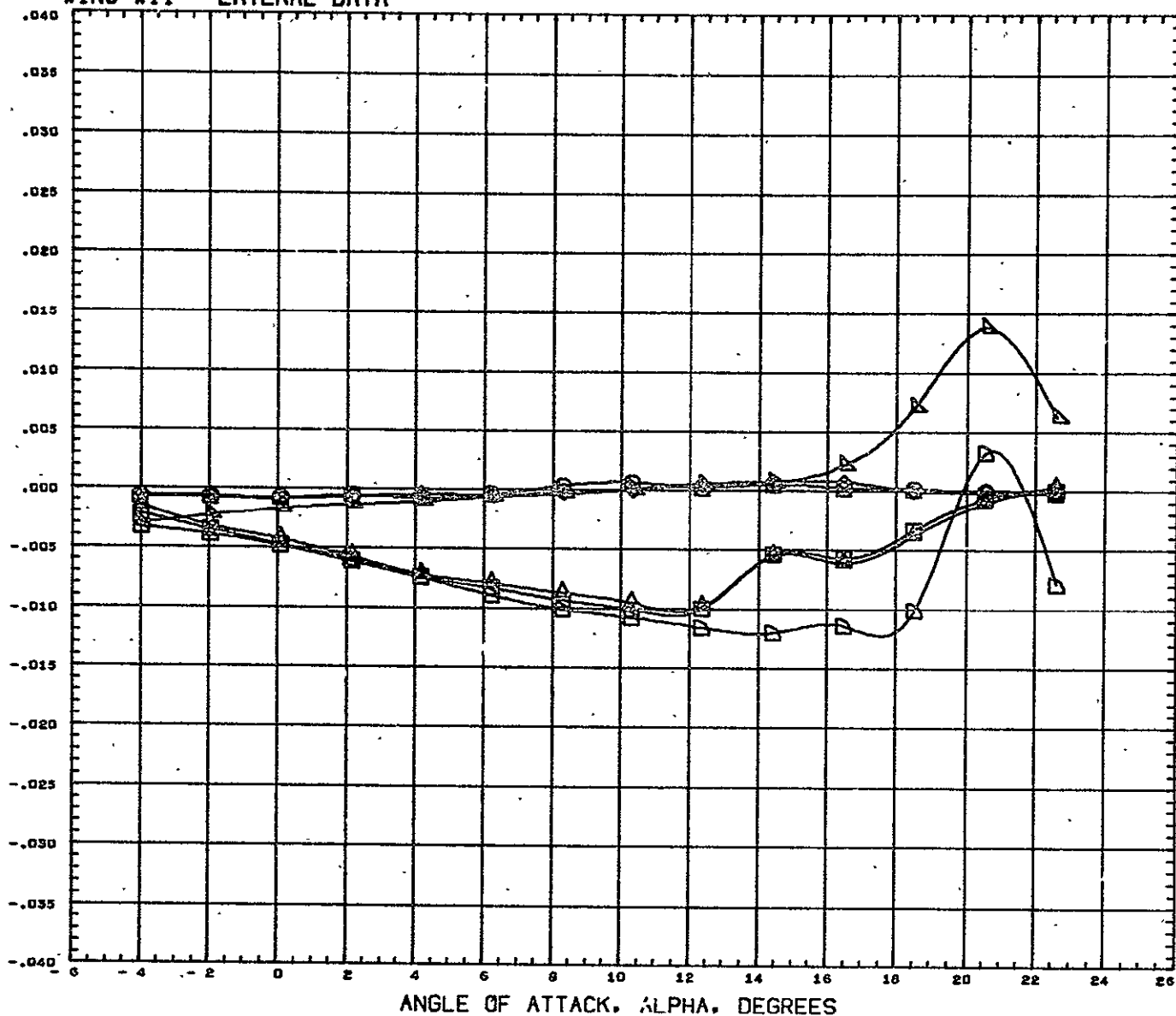
# WING W11 - LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	Q	REFERENCE INFORMATION	
(OCMC01)	GDLST 587-0 B19W11V7P1C4 (POS. 1)	0.000	0.000	0.000	30.000	REFS	379.9004 SQ. IN
(PCMC01)	GDLST 587-0 B19W11V7P1C4 (POS. 1)	4.000	0.000	0.000	60.000	REFL	15.5390 IN.
(OCMC02)	GDLST 587-0 B19W11V7C4 (POS. 1)	0.000	0.000	0.000	60.000	REFB	28.9800 IN.
(PCMC02)	GDLST 587-0 B19W11V7C4 (POS. 1)	4.000	0.000	0.000	60.000	XMRP	33.4360 IN.
(OCMC03)	GDLST 587-0 B19W11-1V7C4 (POS. 1)	0.000	0.000	0.000	60.000	YMRP	0.0000 IN.
(PCMC03)	GDLST 587-0 B19W11-1V7C4 (POS. 1)	4.000	0.000	0.000	60.000	ZMRP	3.9380 IN.
CANARD 1.000						SCALE	0.0175

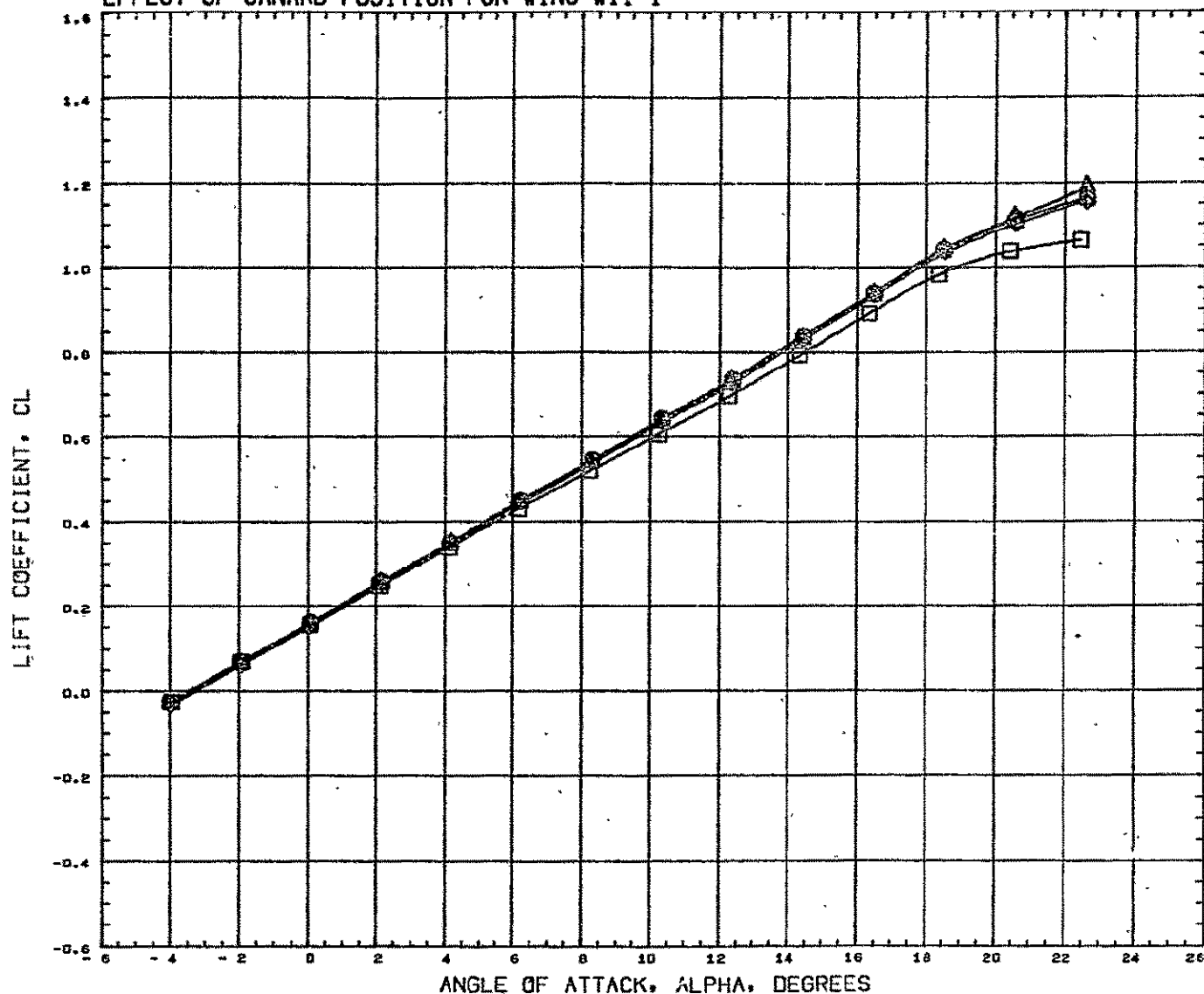
# WING W11 - LATERAL DATA

ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	AILRON	RUDDER	Q	REFERENCE INFORMATION		
(OCMCD1)	GDLST 567-0 B19W11V7P1C4 (POS. 1)	0.000	0.000	0.000	0.000	REFS	379.9004	sq. IN
(PCMC01)	GDLST 567-0 B19W11V7P1C4 (POS. 1)	4.000	0.000	0.000	60.000	REFL	15.5390	IN.
(OCMCD2)	GDLST 567-0 B19W11V7C4 (POS. 1)	0.000	0.000	0.000	60.000	REFB	28.9800	IN.
(PCMC02)	GDLST 567-0 B19W11V7C4 (POS. 1)	4.000	0.000	0.000	60.000	XMRP	33.4360	IN.
(OCMCD3)	GDLST 567-0 B19W11-1V7C4 (POS. 1)	0.000	0.000	0.000	60.000	YMRP	0.0000	IN.
(PCMC03)	GDLST 567-0 B19W11-1V7C4 (POS. 1)	4.000	0.000	0.000	60.000	ZMRP	3.9380	IN.
CANARD	1.000					SCALE	0.0175	

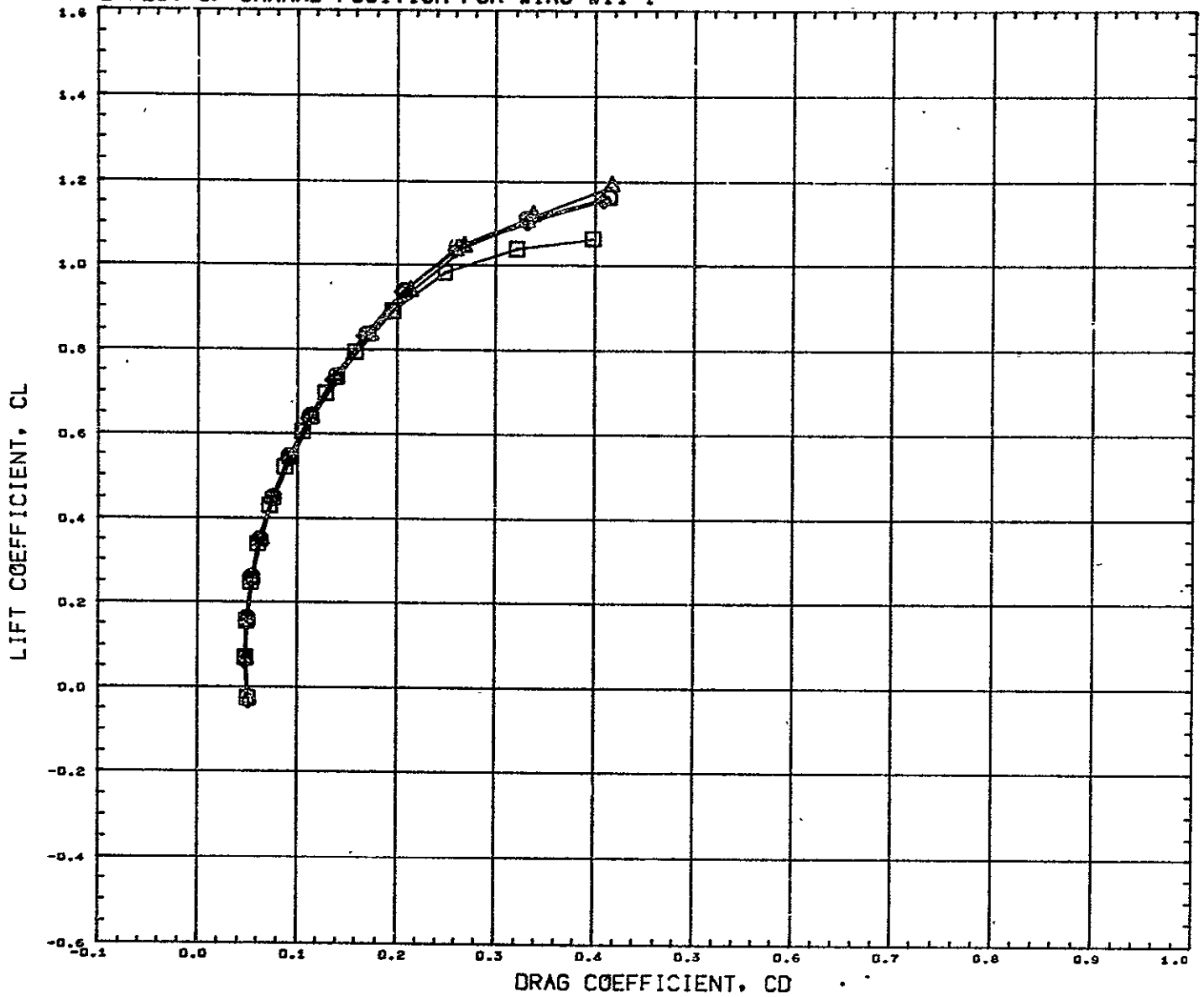
# EFFECT OF CANARD POSITION FOR WING W11-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICNC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	72.000	REFS	379.9004	SQ. IN
(ACNC07)	GDLST 587-D B19W11-1V7C4 (POS. 0)	0.000	0.000	0.000	60.000	REFL	15.5390	IN.
(ACNC08)	GDLST 587-D B19W11-1V7C4 (POS. 2)	2.000	0.000	0.000	60.000	REFB	28.9800	IN.
(ICNC05)	GDLST 587-D B19W11-1V7				60.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	

BETA 0.000

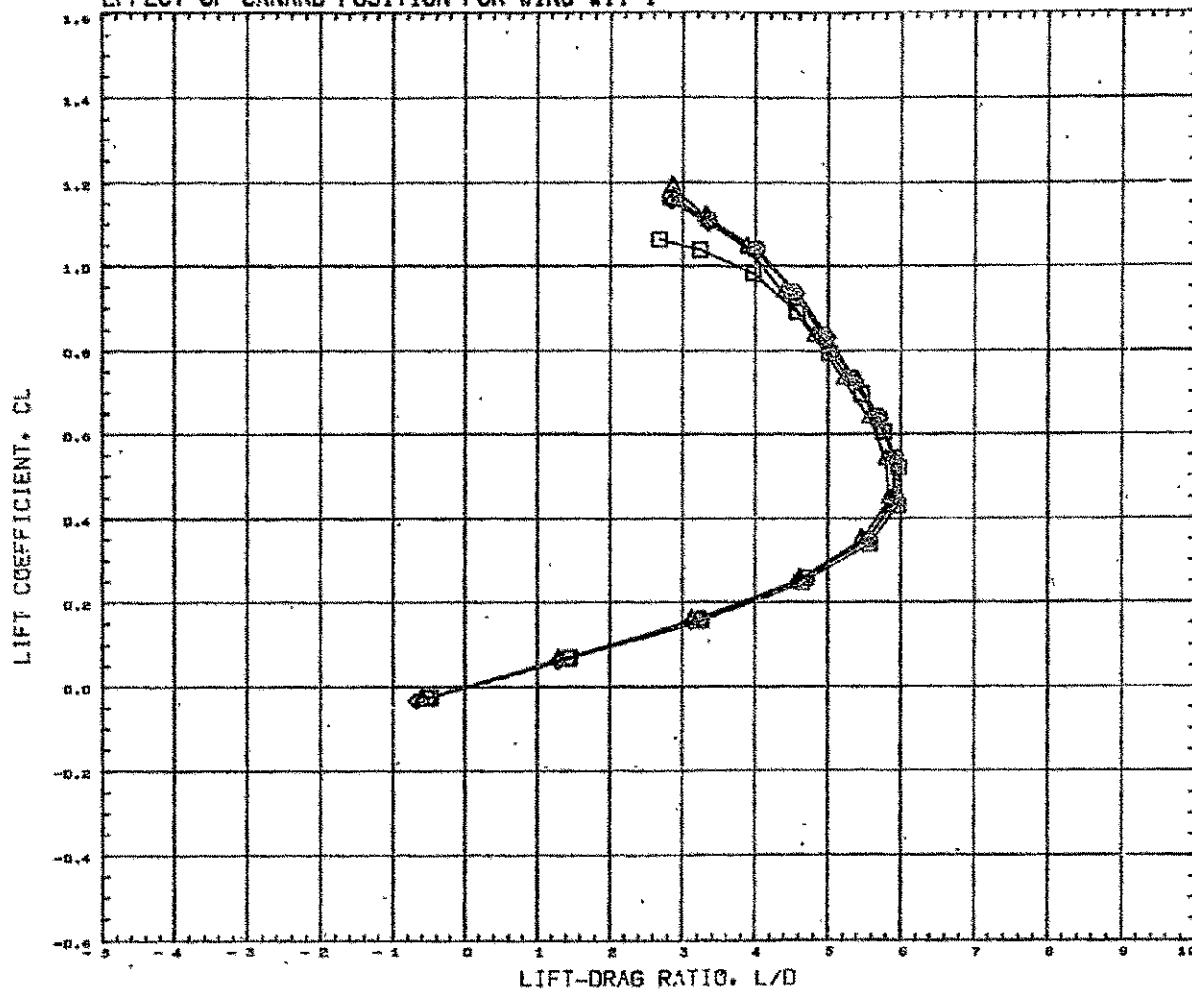
# EFFECT OF CANARD POSITION FOR WING W11-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICMCD3)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	70.000	REFS	379.9004	SQ. IN
(ACMCD7)	GDLST 587-D B19W11-1V7C4 (POS. 8)	8.000	0.000	0.000	60.000	REFL	15.5390	IN.
(ACMCD8)	GDLST 587-D B19W11-1V7C4 (POS. 2)	2.000	0.000	0.000	60.000	REFB	28.9800	IN.
(ICMCD6)	GDLST 587-D B19W11-1VT				60.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9386	IN.
						SCALE	0.0175	

BETA 0.000

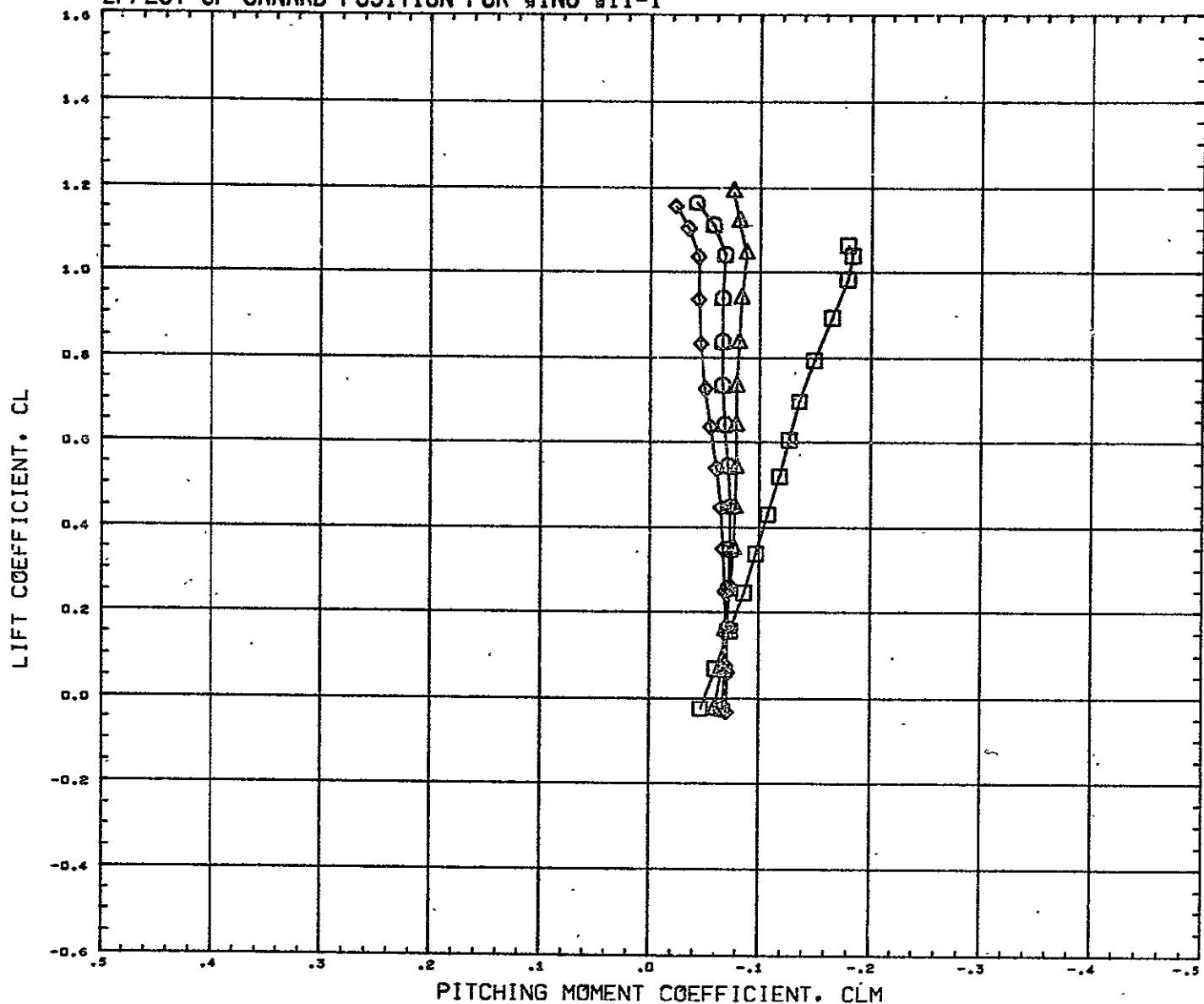
# EFFECT OF CANARD POSITION FOR WING W11-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(1CHC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS 379.9004 SQ. IN.
(1CHC07)	GDLST 587-D B19W11-1V7C4 (POS. 2)	3.000	0.000	0.000	60.000	REFL 15.5550 IN.
(1CHC08)	GDLST 587-D B19W11-1V7C4 (POS. 3)	4.000	0.000	0.000	60.000	REFS 28.9800 IN.
(1CHC09)	GDLST 587-D B19W11-1V7	5.000	0.000	0.000	60.000	YMRP 33.4500 IN.
						ZMRP 0.0000 IN.
						SCALE 3.9360 IN.

BETA 0.000

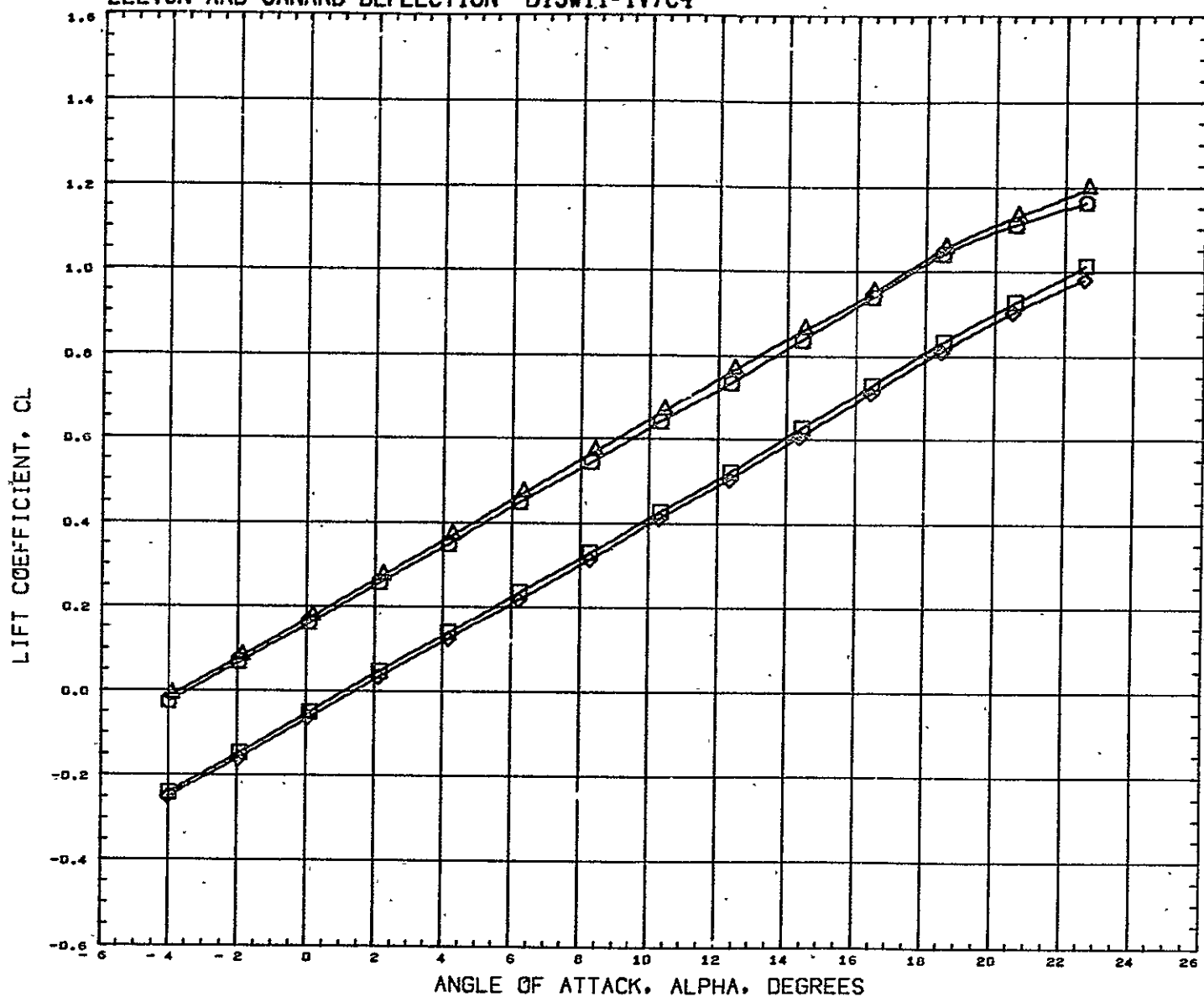
# EFFECT OF CANARD POSITION FOR WING W11-1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ICHC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS 379.9004 SQ. IN.
(ACMC07)	GDLST 587-D B19W11-1V7C4 (POS. 8)	8.000	0.000	0.000	60.000	REFL 15.5390 IN.
(ACMC08)	GDLST 587-D B19W11-1V7C4 (POS. 2)	2.000	0.000	0.000	60.000	REFB 28.9600 IN.
(ICMC05)	GDLST 587-D B19W11-1V7				60.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9375 IN.
						SCALE 0.0175

BETA 0.000

# ELEVON AND CANARD DEFLECTION B19W11-1V7C4



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ICMCD3) GDLST 587-D B19W11-1V7C4 (POS. 1)  
 (ICMCD4) GDLST 587-D B19W11-1V7C4 (POS. 1)  
 (ACMC12) GDLST 587-D B19W11-1V7C4 (POS. 1)  
 (ACMC13) GDLST 587-D B19W11-1V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	ELEVTR
1.000	0.000	0.000	0.000
1.000	20.000	0.000	0.000
1.000	-10.000	0.000	-10.000
1.000	0.000	0.000	-10.000

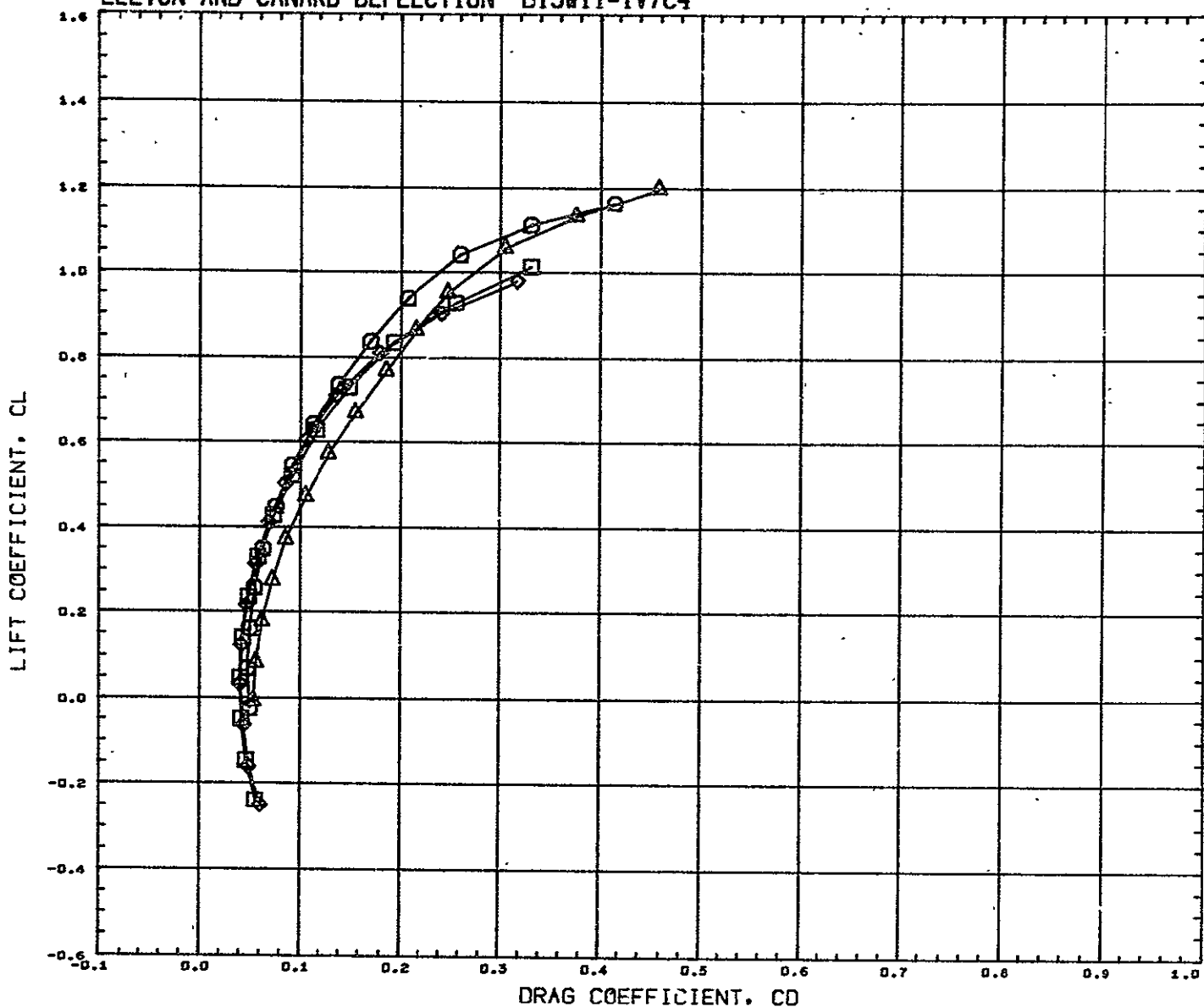
REFERENCE INFORMATION

REFS	379.9004	sq. in.
REFL	15.5390	in.
REFB	28.9800	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.9300	in.
SCALE	0.0175	

BETA 0.000



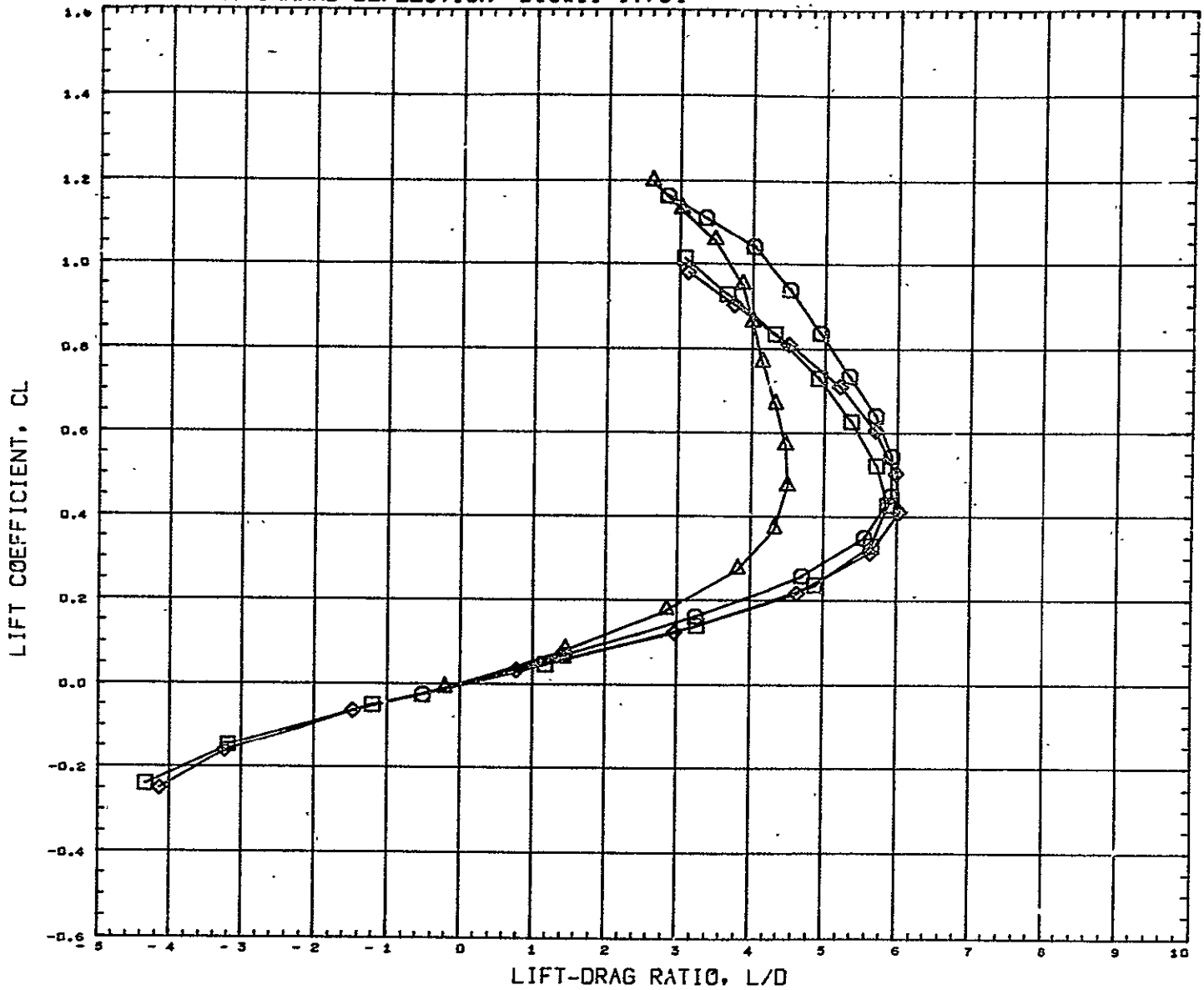
# ELEVON AND CANARD DEFLECTION B19W11-1V7C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	ELEVTR	REFERENCE INFORMATION	
(ICNC03)	GDLST 587-0 B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	0.000	REFS	379.9004 SQ. IN
(ICNC04)	GDLST 587-0 B19W11-1V7C4 (POS. 1)	1.000	20.000	0.000	0.000	REFL	15.5390 IN.
(ACNC12)	GDLST 587-0 B19W11-1V7C4 (POS. 1)	1.000	-10.000	0.000	-10.000	REFB	20.9800 IN.
(ACNC13)	GDLST 587-0 B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	-10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9383 IN.
						SCALE	0.0175

BETA 0.000

# ELEVON AND CANARD DEFLECTION B19W11-1V7C4

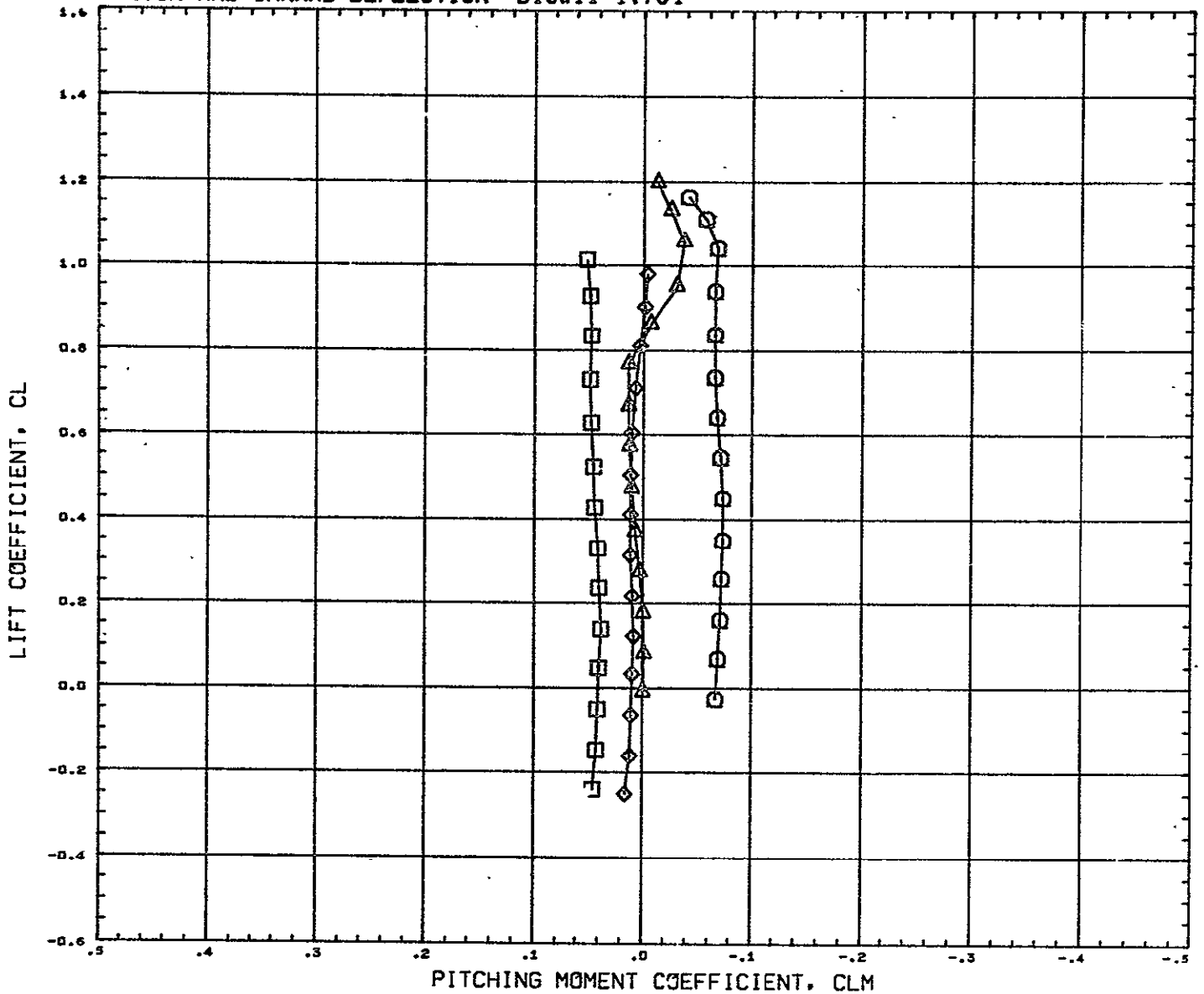


LIFT-DRAGE RATIO, L/D

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	ELEVTR	REFERENCE INFORMATION	
(ICH03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	0.700	REFS	379.9004 SQ. IN.
(ICH04)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	20.000	0.000	-0.000	REFL	15.5390 IN.
(ACH12)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	-10.000	0.000	-10.000	REFB	20.9800 IN.
(ACH13)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	-10.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9384 IN.
						SCALE	0.01:5

BETA 0.000

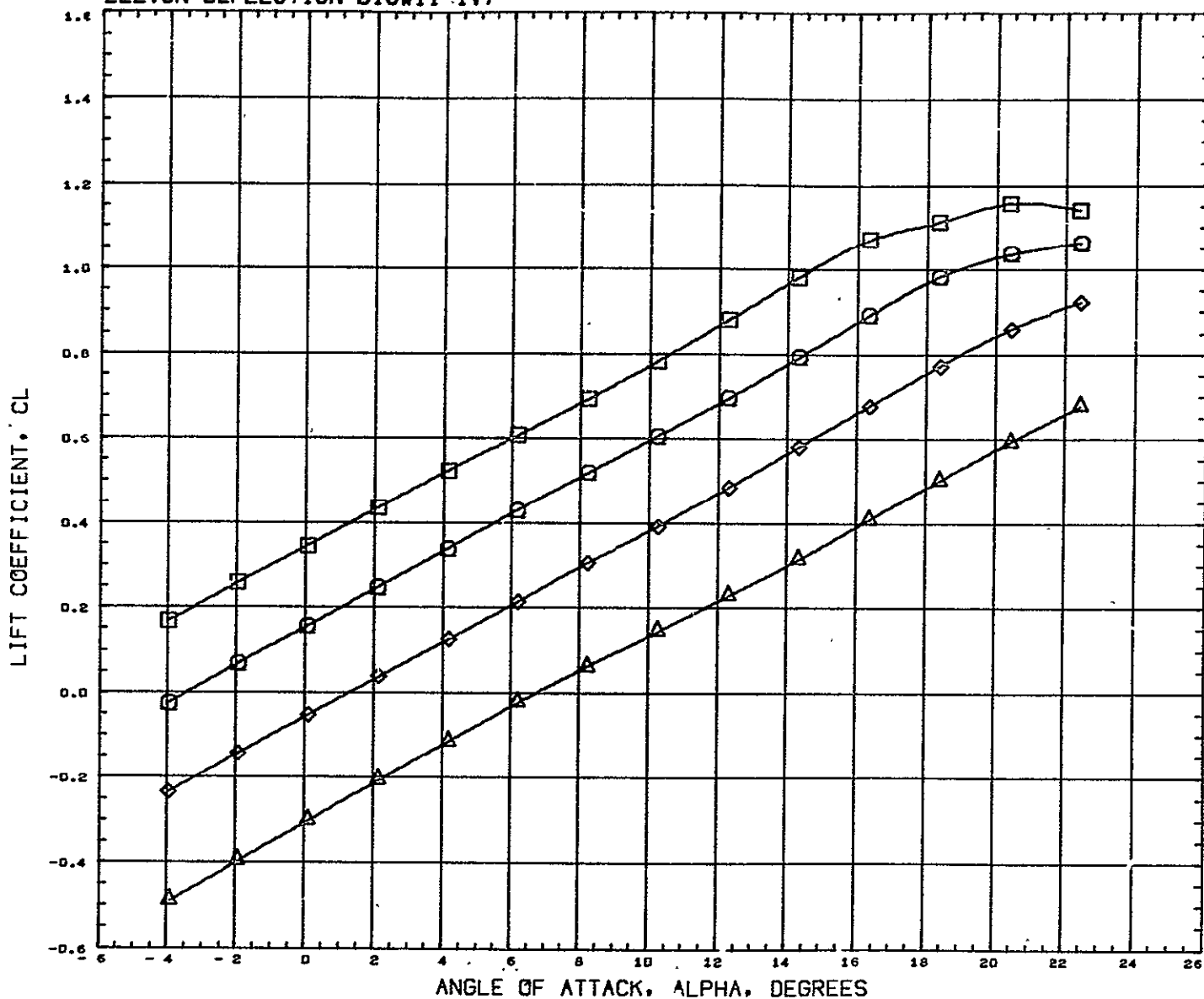
# ELEVON AND CANARD DEFLECTION B19W11-1V7C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	ELEVTR	REFERENCE INFORMATION
(ICNC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	0.000	REFS 379.9004 SQ. IN.
(ICNC04)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	20.000	0.000	0.000	REFL 15.5390 IN.
(ACNC12)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	-10.000	0.000	-10.000	REFB 28.9800 IN.
(ACNC13)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	-10.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175

BETA 0.000

# ELEVON DEFLECTION B19W11-1V7

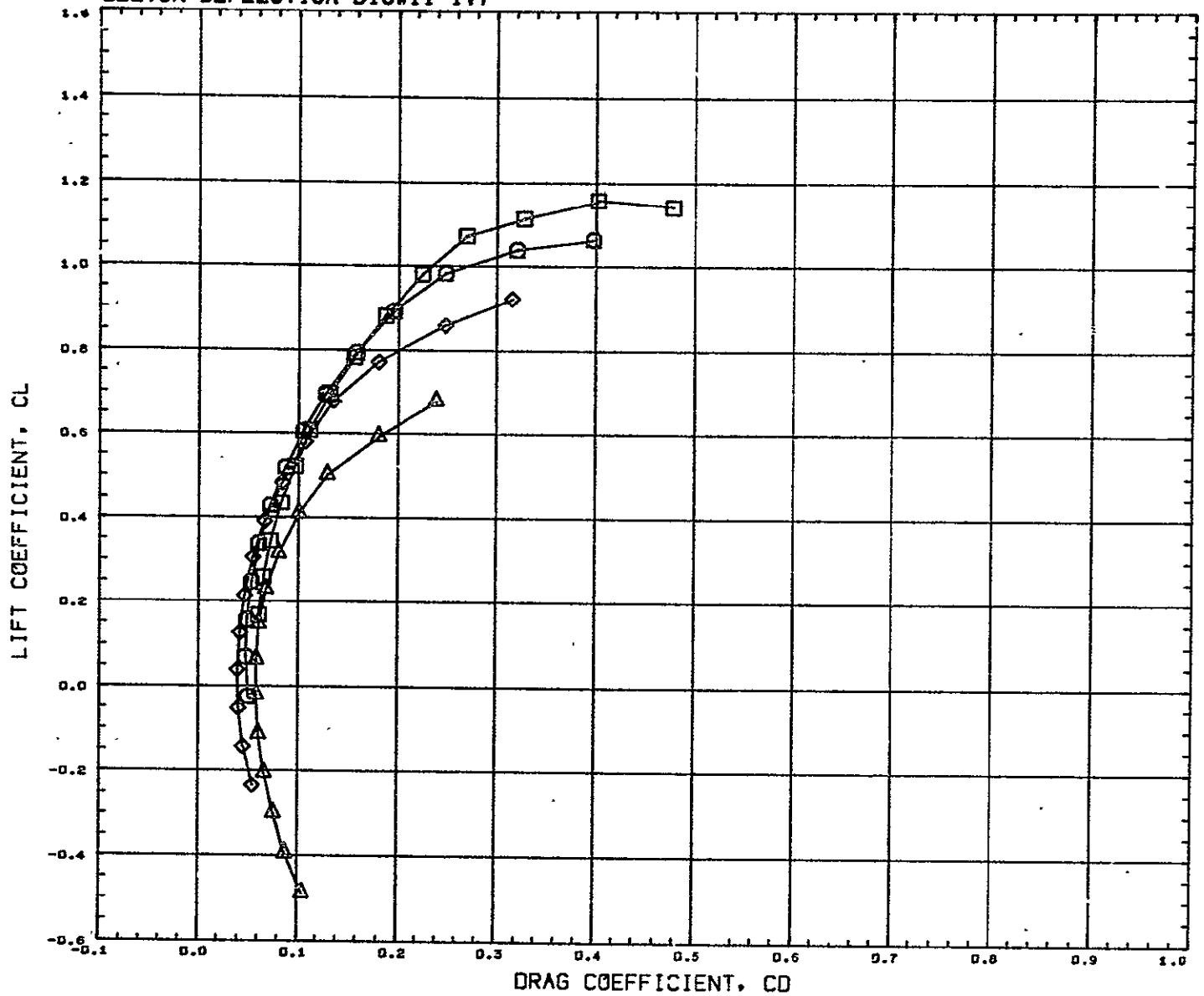


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMC05)	GDLST 587-0 B19W11-1V7
(ACMC09)	GDLST 587-0 B19W11-1V7
(ACMC10)	GDLST 587-0 B19W11-1V7
(ACMC11)	GDLST 587-0 B19W11-1V7

ELEVTR	AILRON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	60.000	REFS 379.9004 SQ. IN.
-25.000	0.000	0.000	60.000	REFL 15.5390 IN.
-10.000	0.000	0.000	60.000	REFB 28.9800 IN.
10.000	0.000	0.000	60.000	XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

# ELEVON DEFLECTION B19W11-1V7

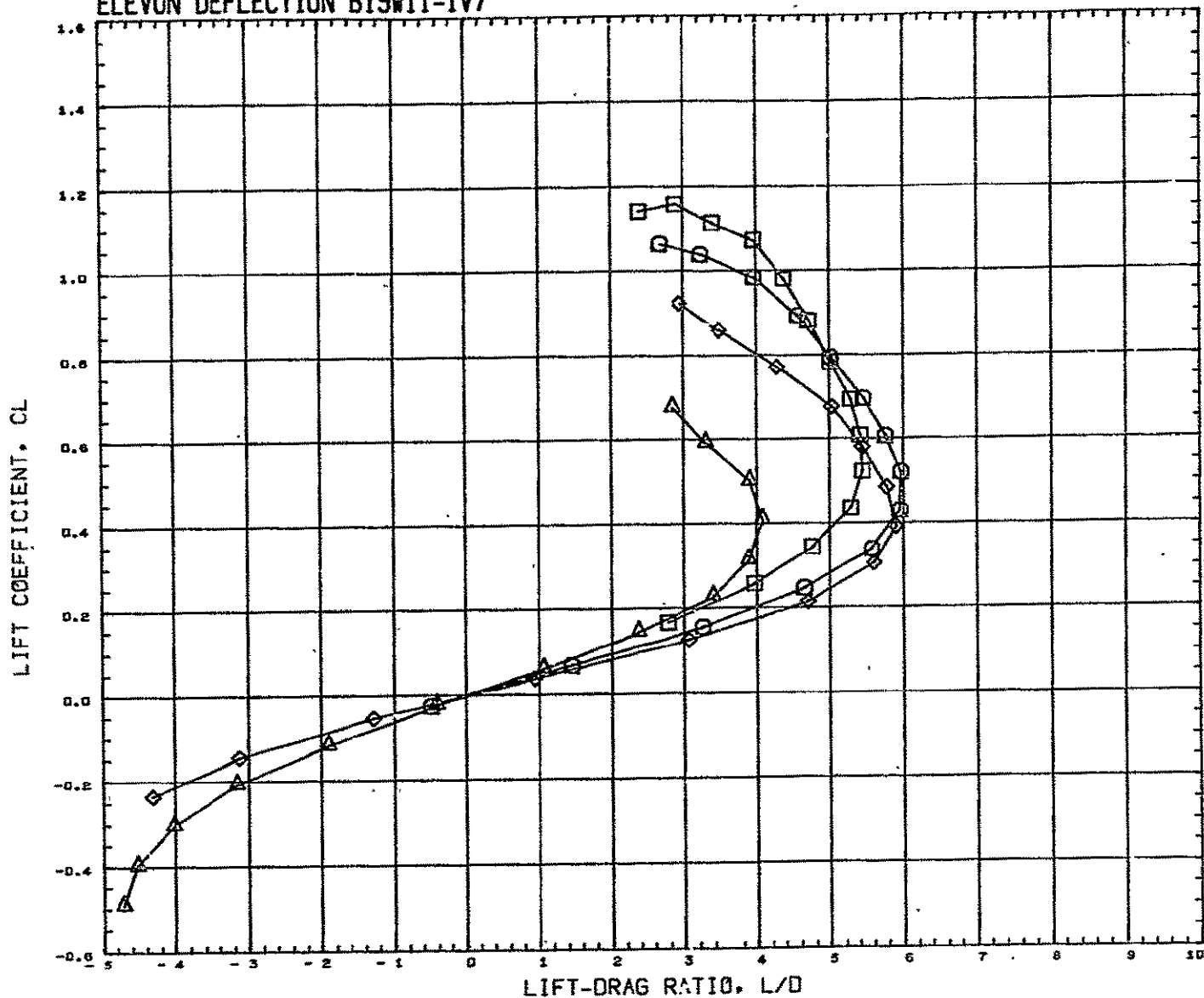


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMCD5)	GDLST 587-D B19W11-1V7
(ACMCD9)	GDLST 587-D B19W11-1V7
(ACMCI5)	GDLST 587-D B19W11-1V7
(ACMCI1)	GDLST 587-U B19W11-1V7

BETA 0.000

ELEVTR	AILFON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	40.000	REFS 379.9004 SQ. IN.
-25.000	0.000	0.000	40.000	REFL 15.5390 IN.
-10.000	0.000	0.000	60.000	REFB 28.9800 IN.
10.000	0.000	0.000	60.000	XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

# ELEVON DEFLECTION B19W11-1V7

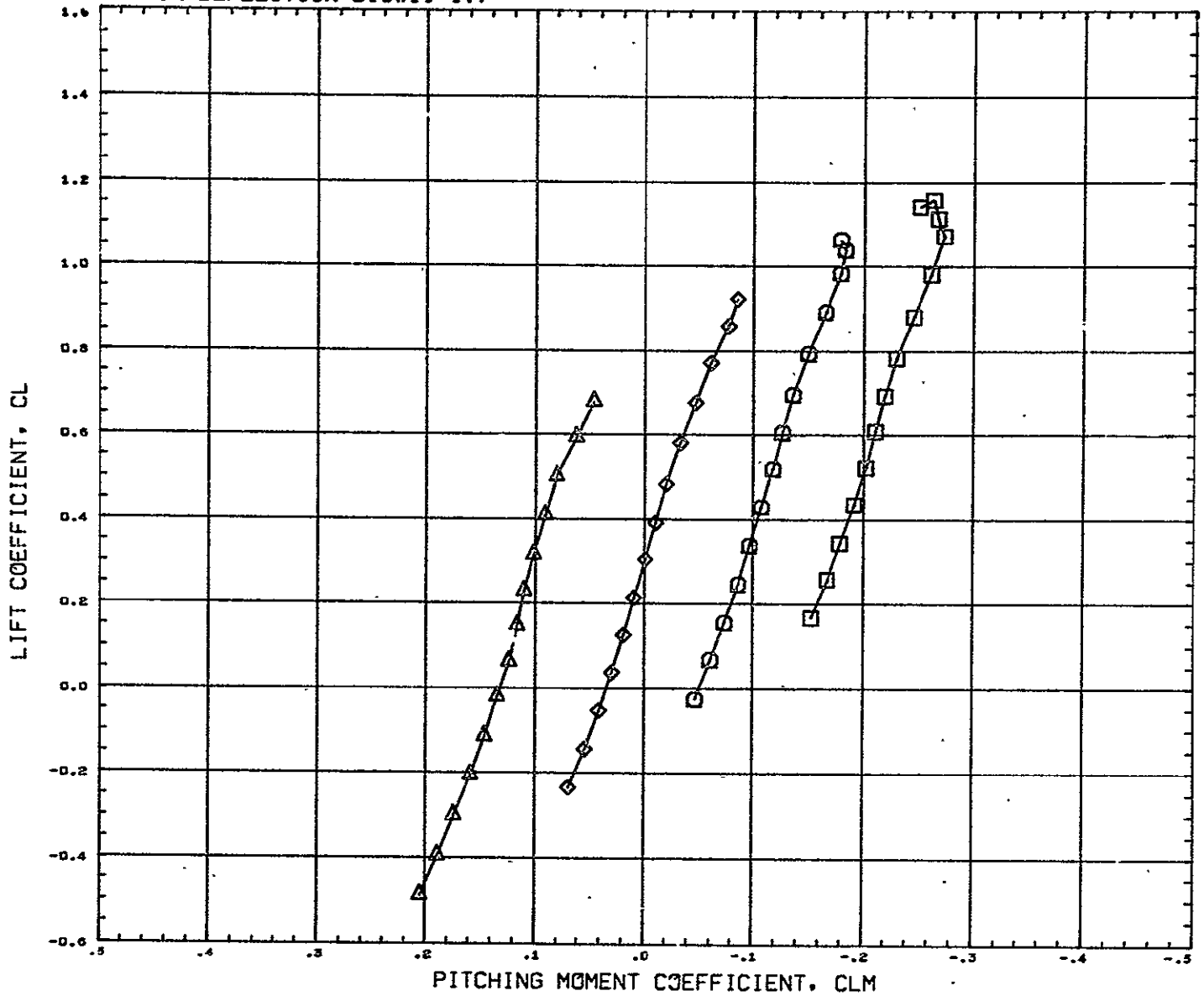


DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(ICMCD5)	□	GDLST 587-0	B19W11-1V7
(ACMCD9)	△	GDLST 587-0	B19W11-1V7
(ACMCD10)	◇	GDLST 587-0	B19W11-1V7
(ACMCD11)	○	GDLST 587-0	B19W11-1V7

BETA 0.000

ELEVTR	AILRON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	40.000	REFS 379.9004 SQ. IN
-25.000	0.000	0.000	41.000	REFL 15.5390 IN.
-10.000	0.000	0.000	60.000	REFB 28.9800 IN.
10.000	0.000	0.000	60.000	XNRP 33.4360 IN.
				YNRP 0.0000 IN.
				ZNRP 3.9380 IN.
				SCALE 9.0173

# ELEVON DEFLECTION B19W11-1V7

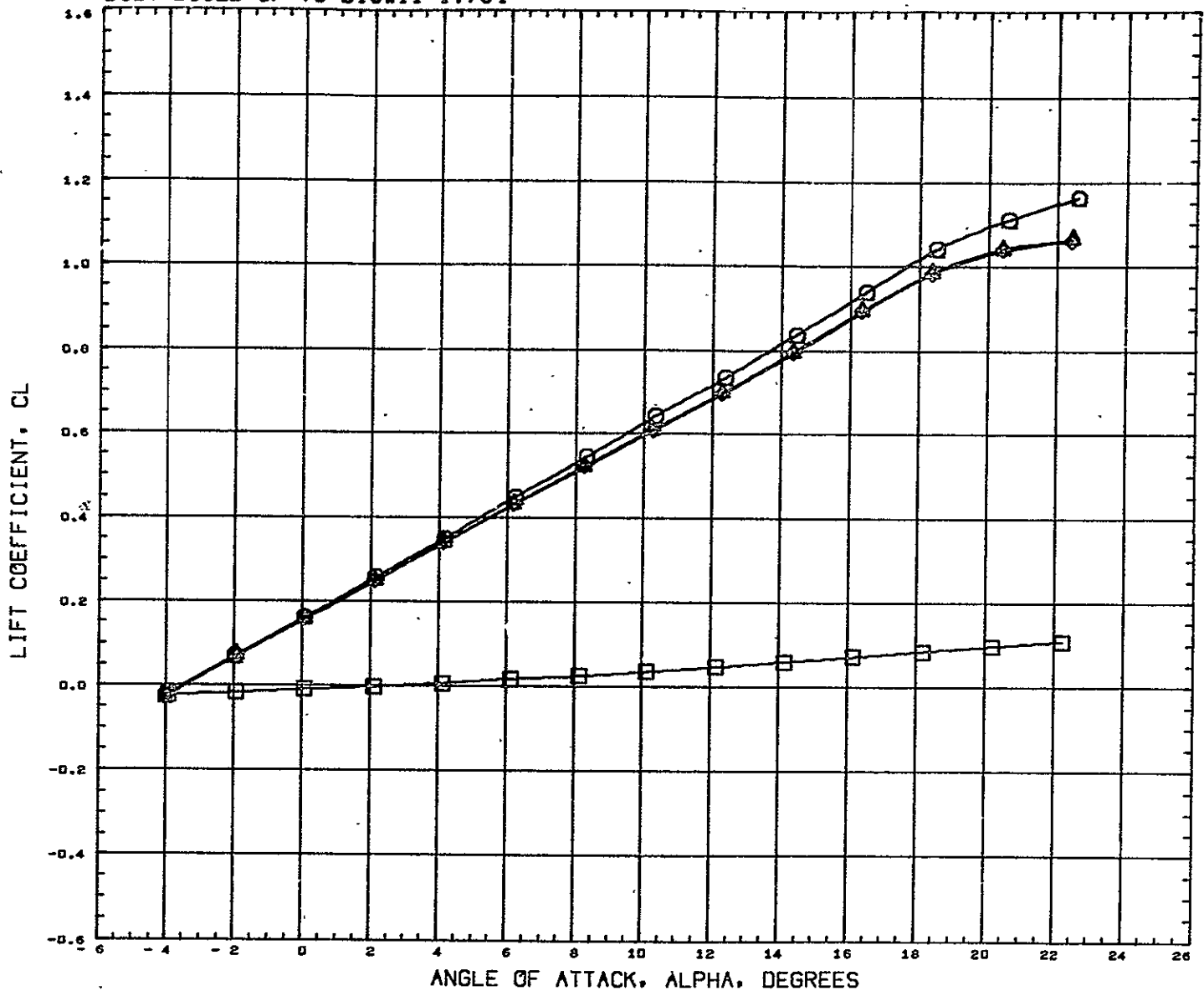


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMCD5)	GDLST 587-0 B19W11-1V7
(ACMC09)	GDLST 587-0 B19W11-1V7
(ACMC10)	GDLST 587-0 B19W11-1V7
(ACMC11)	GDLST 587-0 B19W11-1V7

BETA 0.000

ELEVTR	AILRON	RUDDER	Q	REFERENCE INFORMATION
0.000	0.000	0.000	50.000	REFS 379.9004 SQ. IN
-25.000	0.000	0.000	60.000	REFL 15.5390 IN.
-10.000	0.000	0.000	60.000	REFB 28.9800 IN.
10.000	0.000	0.000	60.000	XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9384 IN.
				SCALE 0.0175

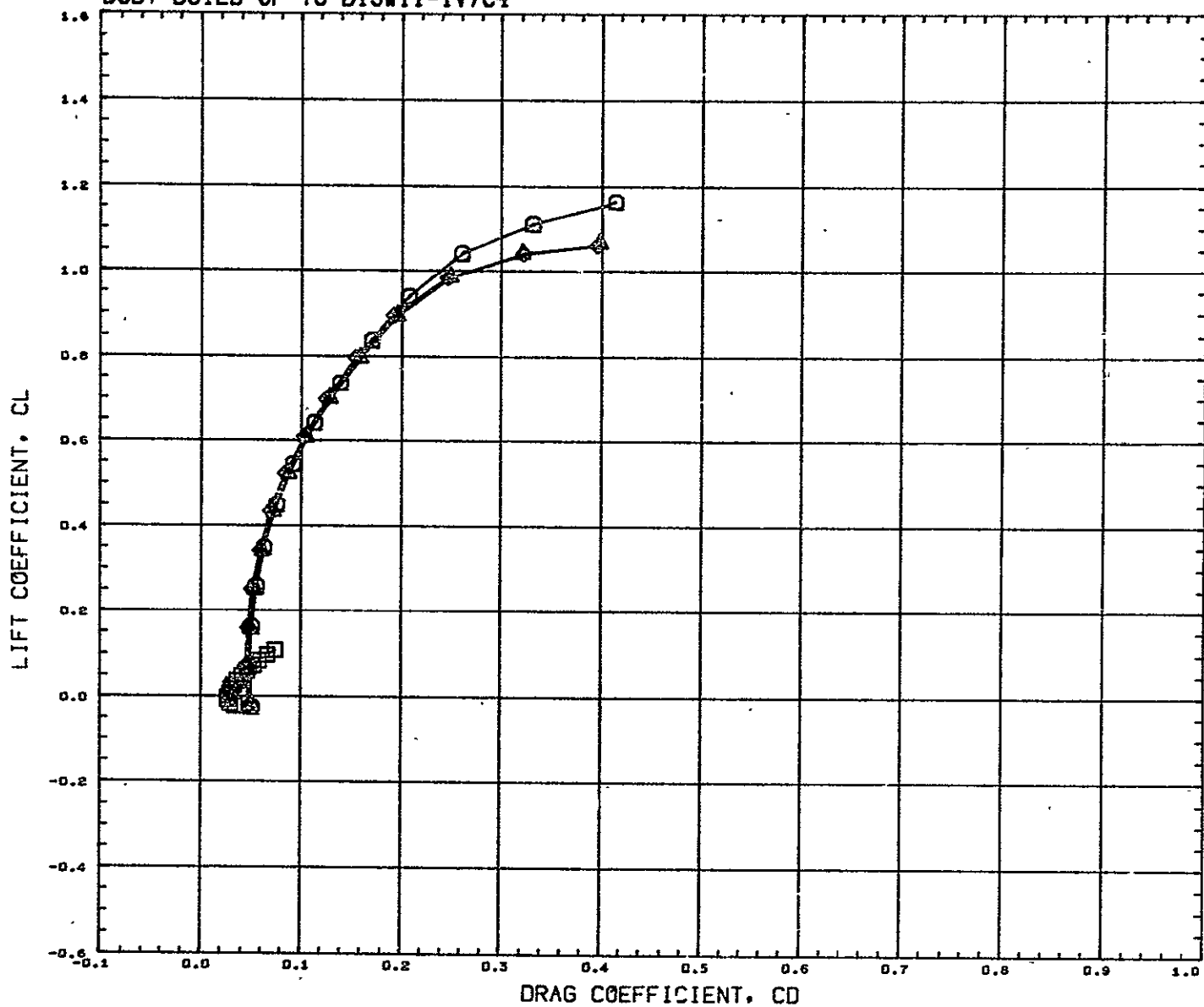
# BODY BUILD-UP TO B19W11-1V7C4



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION		
(ICMC03)	○	GDLST 587-0 B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	77.300	REFS	379.9004	SQ. IN
(ICMC05)	△	GDLST 587-0 B19W11-1V7				60.000	REFL	15.5390	IN.
(ICMC06)	◇	GDLST 587-0 B19W11-1				60.000	REFB	28.9800	IN.
(ICMC51)	□	GDLST 587-0 B19				60.400	XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9383	IN.
							SCALE	0.0175	
BETA		0.000							



# BODY BUILD-UP TO B19W11-1V7C4

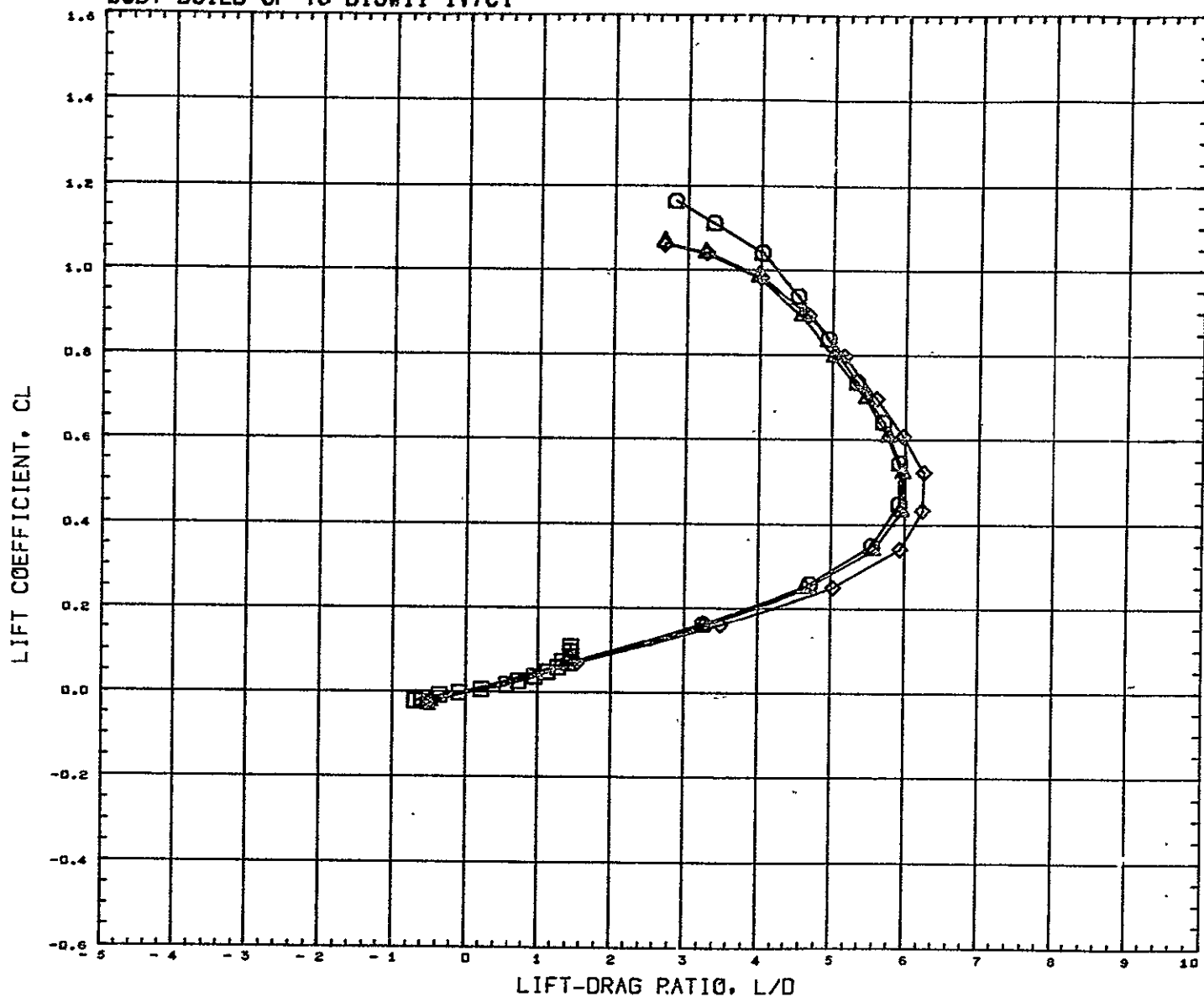


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMCD3)	GDLST 587-0 B19W11-1V7C4 (POS. 1)
(ICMCD5)	GDLST 587-0 B19W11-1V7
(ICMCD6)	GDLST 587-0 B19W11-1
(ICMCD1)	GDLST 587-0 B19

BETA 0.000

CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	50.000	REFS 379.9004 SQ. IN
			5.000	REFL 15.5390 IN.
			60.000	REFB 28.9800 IN.
			60.400	XHRP 33.4360 IN.
				YHRP 0.0000 IN.
				ZHRP 3.9380 IN.
				SCALE 0.0175

# BODY BUILD-UP TO B19W11-1V7C4



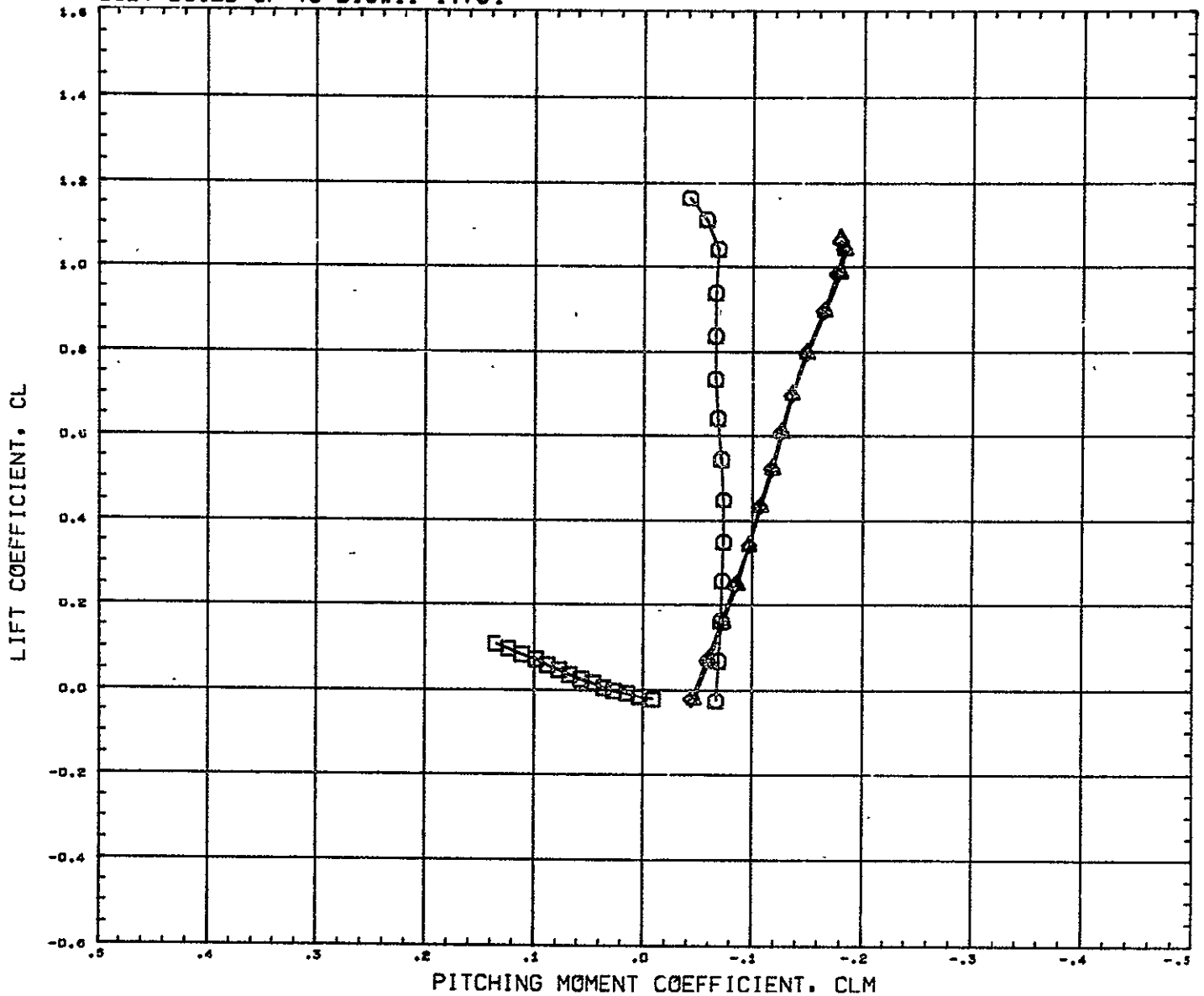
DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
(ICMC03)	○	GDLST 587-D	B19W11-1V7C4 (POS. 1)
(ICMC05)	△	GDLST 587-D	B19W11-1V7
(ICMC06)	◇	GDLST 587-D	B19W11-1
(ICMC51)	□	GDLST 587-U	B19

BETA 0.000

LIFT-DRAGE RATIO, L/D

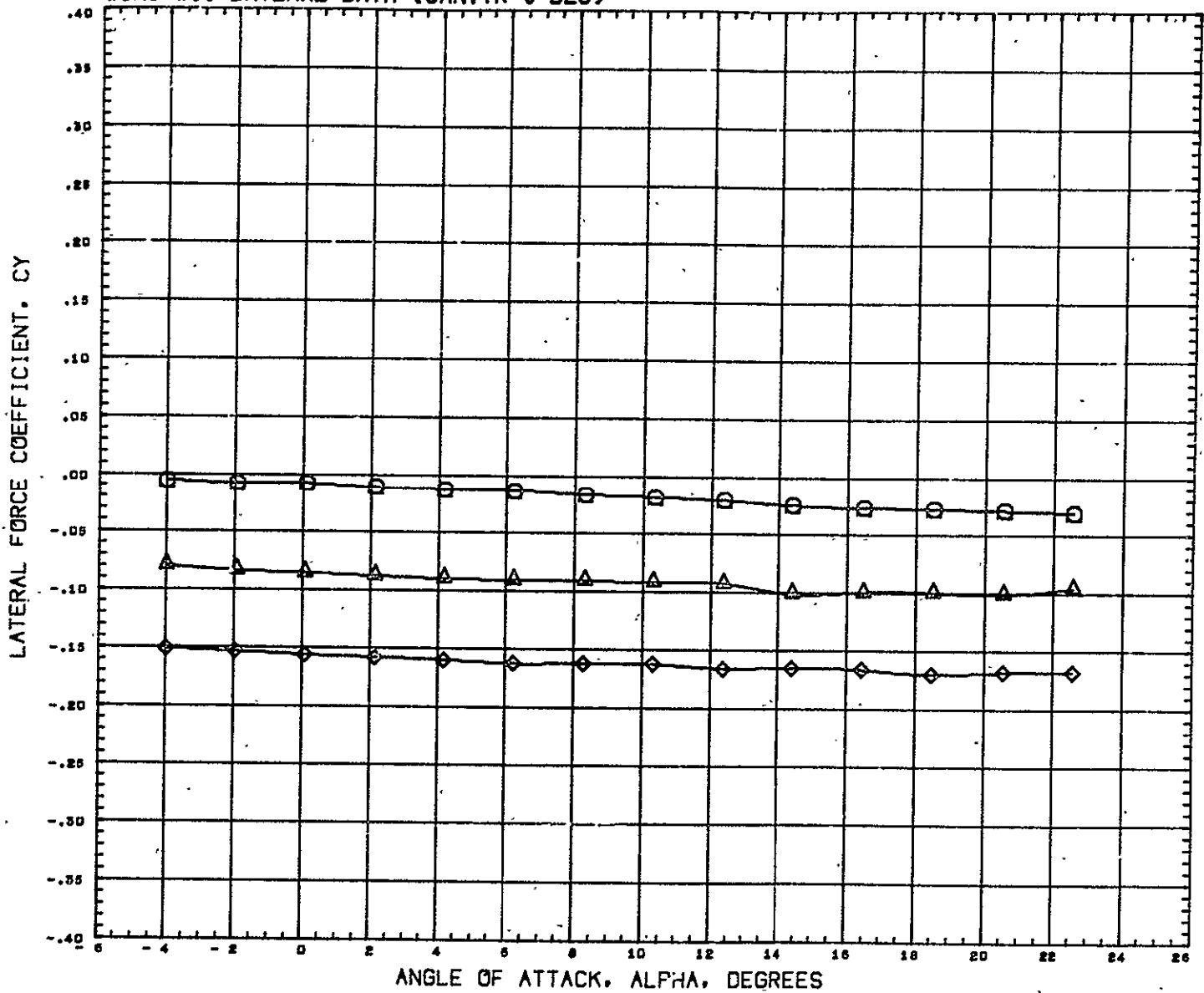
CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
1.000	0.000	0.000	60.000	REFS	379.9004	Sq. in.
			60.000	REFL	15.5390	IN.
			60.000	REFB	28.9800	IN.
			60.400	XMRP	33.4360	IN.
				YMRP	0.0000	IN.
				ZMRP	3.9380	IN.
				SCALE	0.0175	

# BODY BUILD-UP TO B19W11-1V7C4



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION		
(ICMC03)	○	GDLST 507-0 B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	379.9004	SQ. IN
(ICMC05)	△	GDLST 507-0 B19W11-1V7				60.000	REFL	15.5380	IN.
(ICMC06)	◇	GDLST 507-0 B19W11-1				60.000	REFB	28.9800	IN.
(ICMC51)	□	GDLST 507-0 B19				60.400	XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9310	IN.
							SCALE	0.0175	
BETA		0.000							

# WING W11 LATERAL DATA (CANVTR=0 DEG)



SYMBOL	BETA	PARAMETRIC VALUES
○	0.000	60.000 ELEVTR 0.000
△	4.000	0.000 RUDDER 0.000
◇	8.000	1.000 CANVTR 0.000
		0.000 CFLAPR 0.000

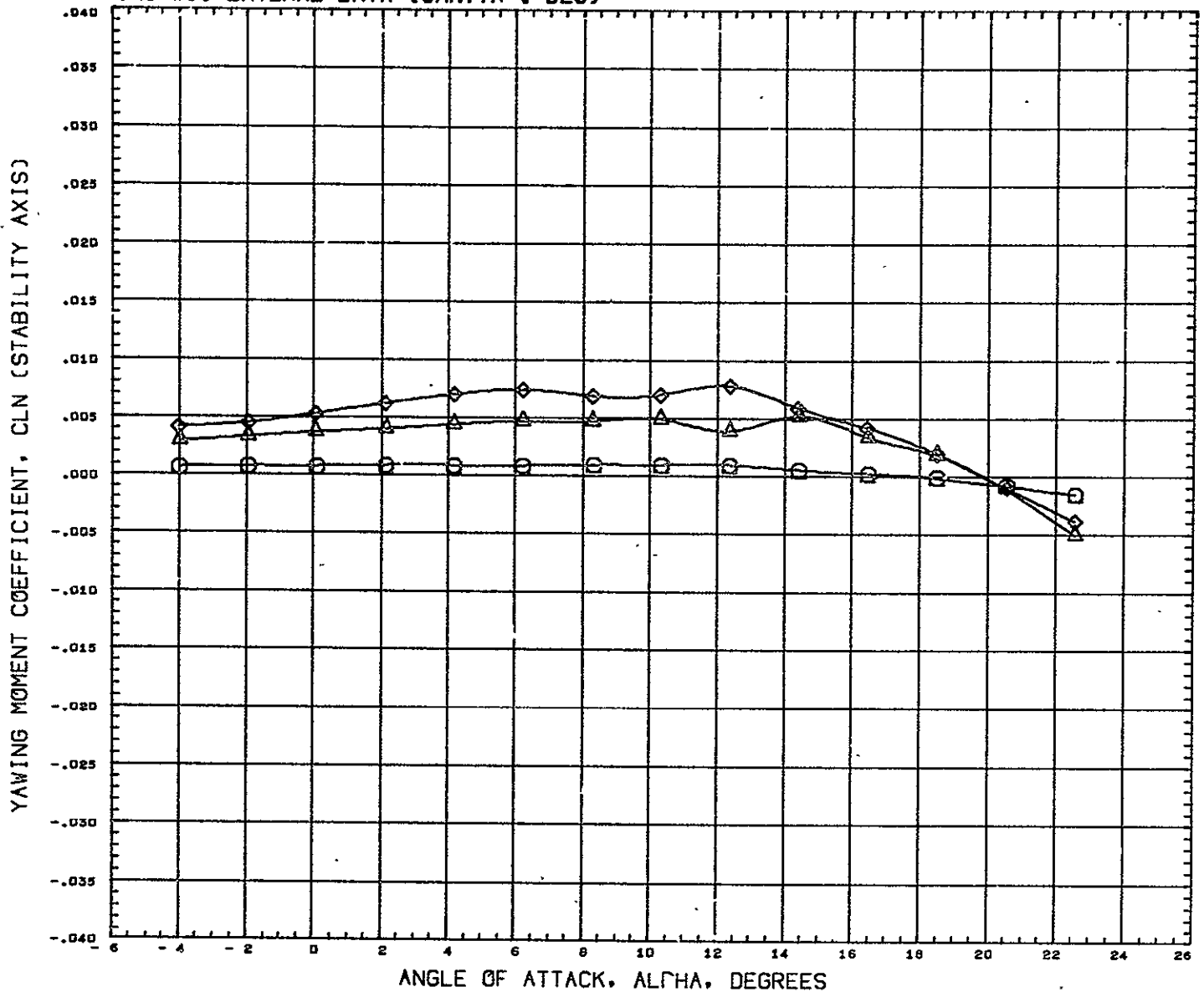
DATA HIST. CODE MVV

REFERENCE INFORMATION		
REFS	379.9004	SQ. IN
REFL	15.5390	IN.
REFB	26.9800	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-0 B19W11V7C4(P0S. 1)

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# WING W11 LATERAL DATA (CANVTR=0 DEG)



SYMBOL	BETA	PARAMETRIC VALUES			
◇	0.000	Q	60.000	ELEVTR	0.000
△	4.000	AILRON	0.000	RUDDER	0.000
○	8.000	CANARD	1.000	CANVTR	0.000
		CANRON	0.000	CFLAPR	0.000

DATA HIST. CODE MVV

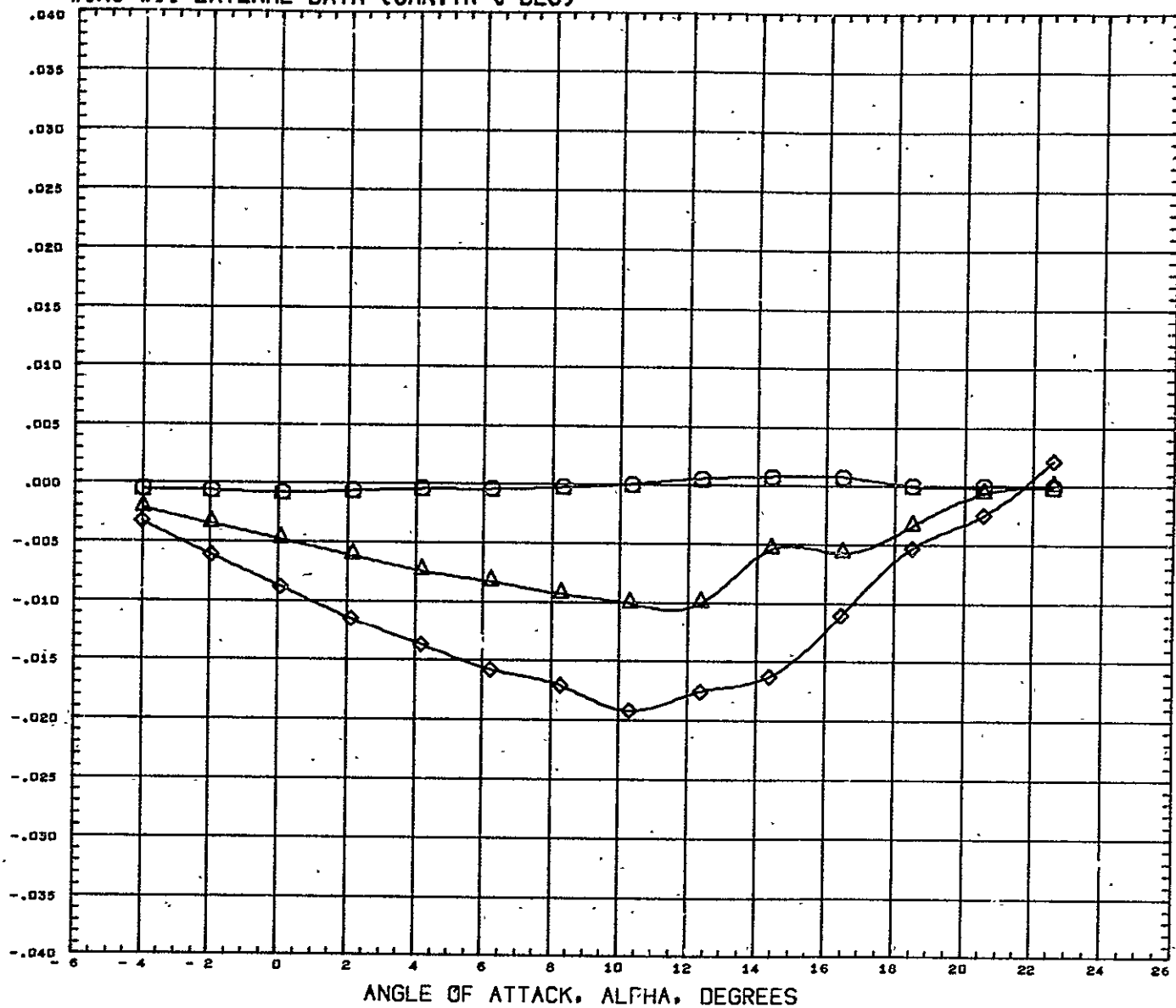
REFERENCE INFORMATION		
REFS	379.9004	SQ. IN
REFL	15.5390	IN.
REFB	28.9800	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-0 B19W11V7C4(P0S. 1)

(ACMC02) 08 AUG 71 PAGE 137

# WING W11 LATERAL DATA (CANVTR=0 DEG)

ROLLING MOMENT COEFFICIENT, CSL (STABILITY AXIS)

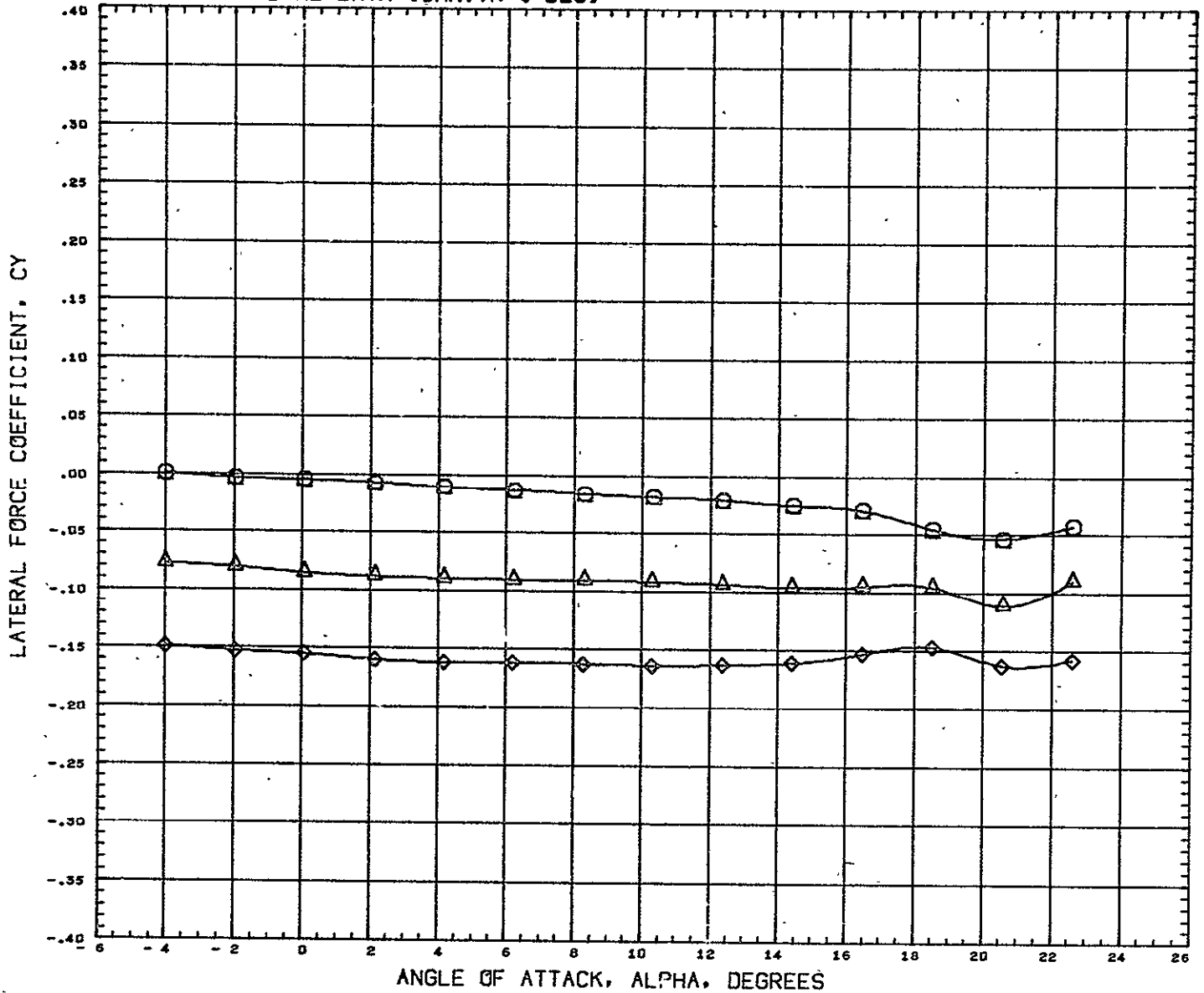


SYMBOL	BETA	PARAMETRIC VALUES			
○	0.000	q	60.000	ELEVTR	0.000
△	4.000	AILRON	0.000	RUDDER	0.000
◇	8.000	CANARD	1.000	CANVTR	0.000
		CANRON	0.000	CFLAPR	0.000

DATA HIST. CODE MVV

REFERENCE INFORMATION		
REFS	379.9004	SQ. IN
REFL	15.5390	IN.
REFB	28.9800	IN.
XNRP	33.4360	IN.
YNRP	0.0000	IN.
ZHRP	3.9360	IN.
SCALE	0.0175	

# WING W11 LATERAL DATA (CANVTR=0 DEG)

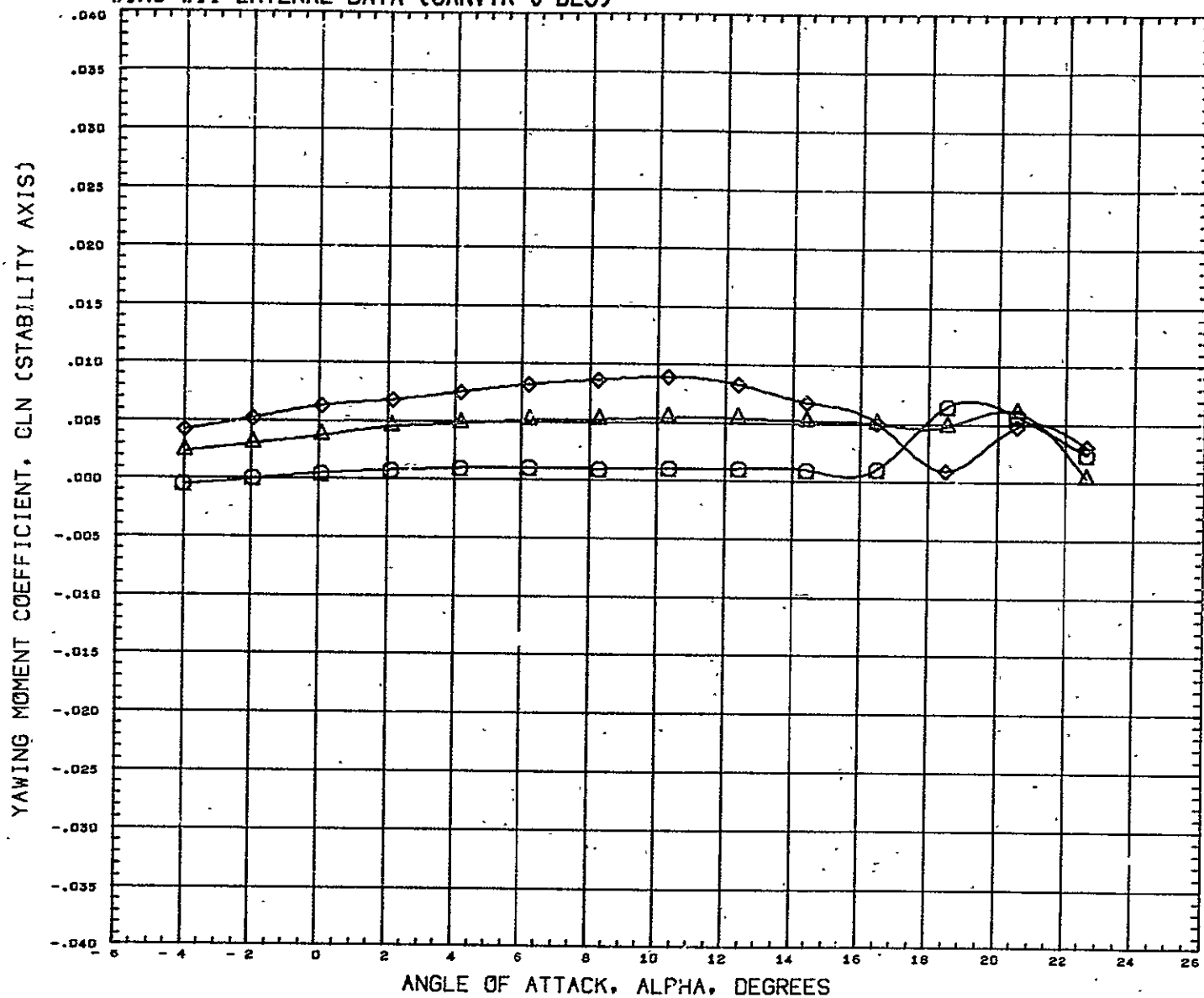


SYMBOL	BETA	PARAMETRIC VALUES				REFERENCE INFORMATION		
○	0.000	Q	60.000	ELEVTR	0.000	REFS	379.9004	SQ. 1.
△	4.000	AILRON	0.000	RUDDER	0.000	REFL	15.5390	IN.
◇	8.000	CANARD	1.000	CANVTR	0.000	REFB	28.9800	IN.
		CANRON	0.000	CFLAPR	0.000	XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
		DATA HIST. CODE	NVV					

GDLST 587-0 B19W11-1V7C4(P0S. 1)

(ACMC03) 08 AUG 71 PAGE 139

# WING W11 LATERAL DATA (CANVTR=0 DEG)



SYMBOL	BETA	PARAMETRIC VALUES			
○	0.000	60.000	ELEVTR	0.000	
△	4.000	AILRON	0.000	RUDDER	0.000
◇	8.000	CANARD	1.000	CANVTR	0.000
		CANRON	0.000	CFLAPR	0.000

DATA HIST. CODE MVV

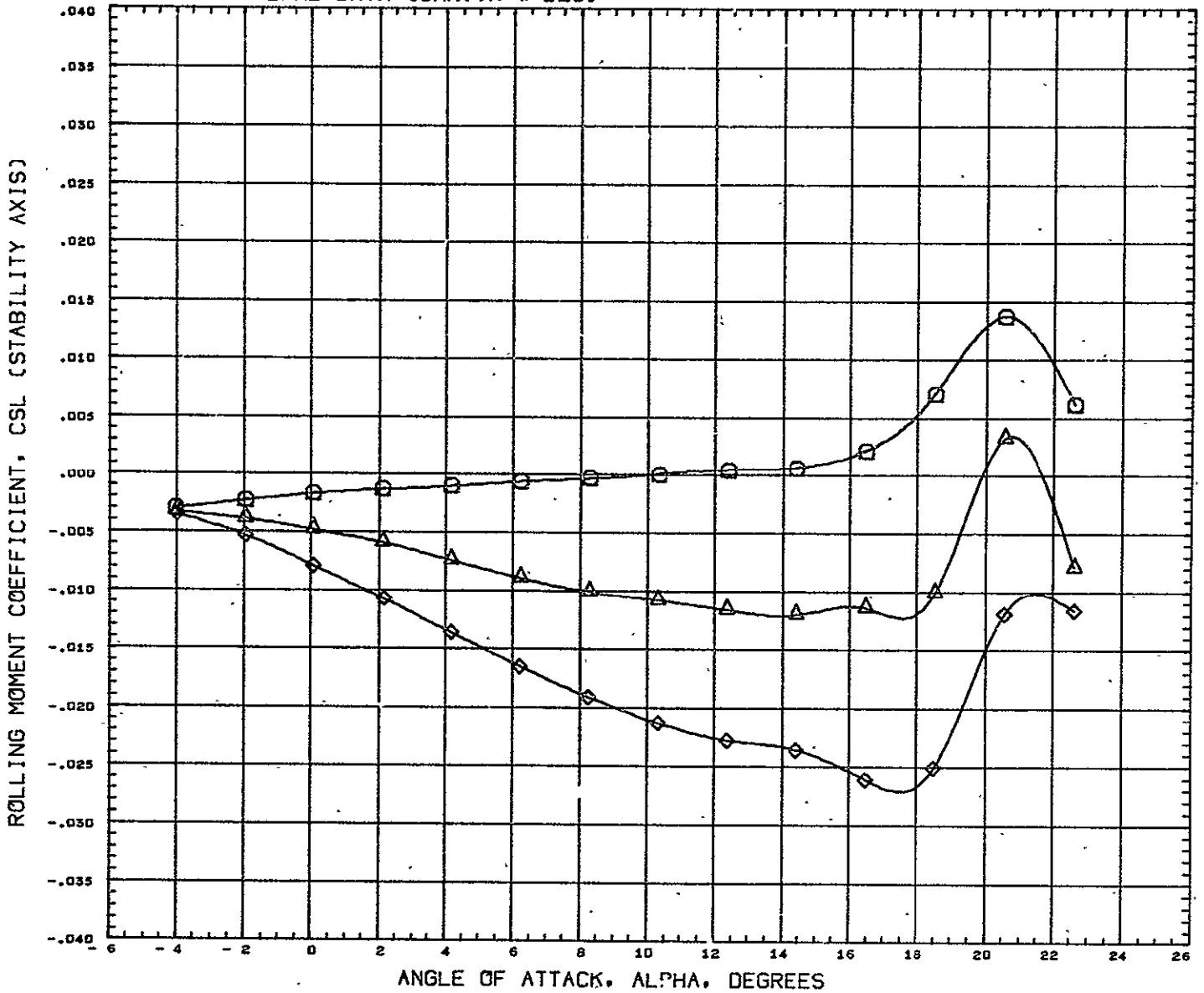
REFERENCE INFORMATION		
REFS	379.9004	SQ. IN
REFL	15.5390	IN.
REFB	28.9800	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-0 B19W11-1V7C4(P0S. 1)

(ACMC03) 08 AUG 71 PAGE 140



# WING W11 LATERAL DATA (CANVTR=0 DEG)

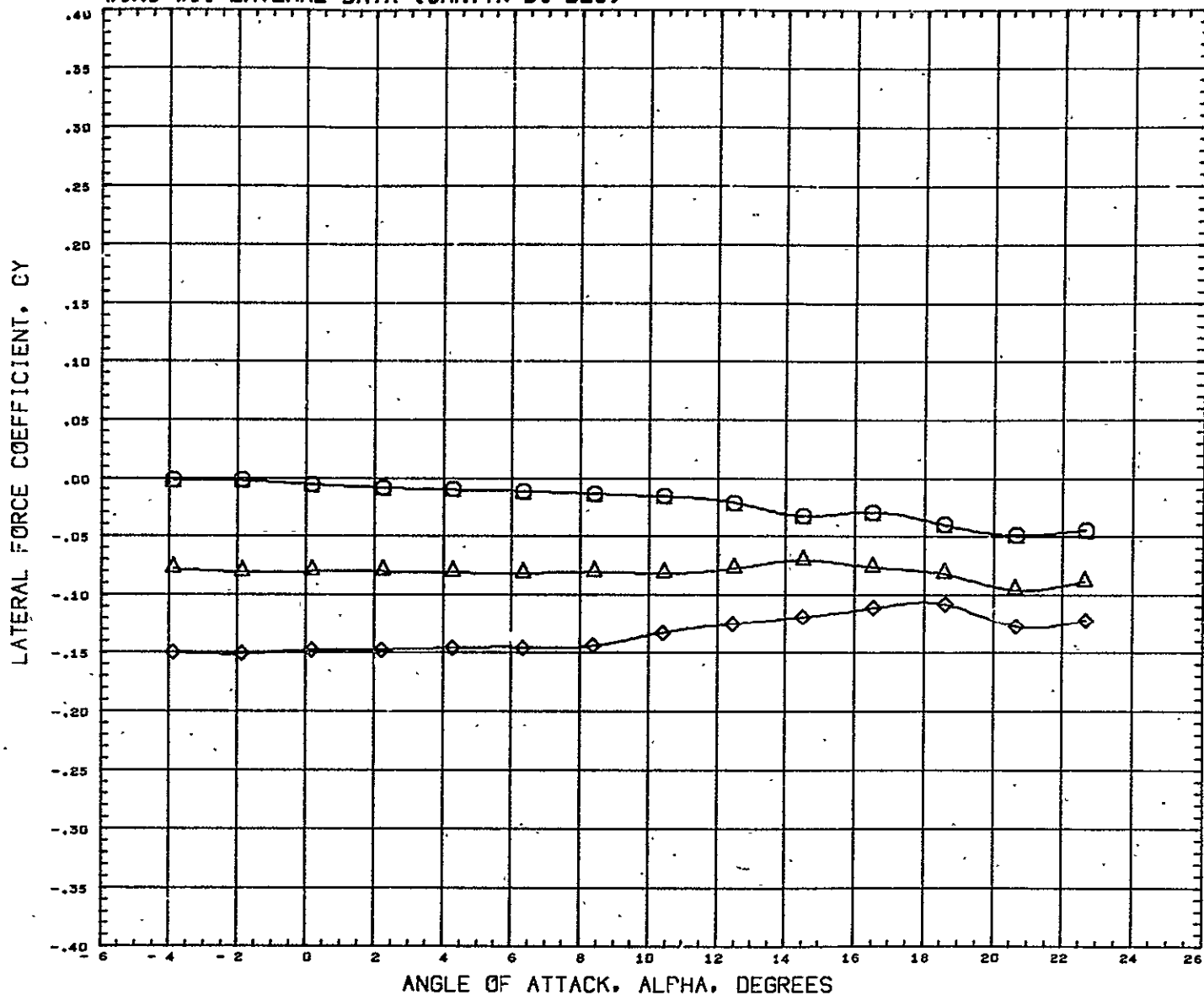


SYMBOL	BETA	PARAMETRIC VALUES			
○	0.000	Q	60.000	ELEVTR	0.000
△	4.000	AILRON	0.000	RUDDER	0.000
◇	8.000	CANARD	1.000	CANVTR	0.000
		CANRON	0.000	CFLAPR	0.000

DATA HIST. CODE MVV

REFERENCE INFORMATION		
REFS	379.9004	SQ. 1..
REFL	15.5390	IN.
REFB	28.9800	IN.
XHRP	33.4360	IN.
YHRP	0.0000	IN.
ZHRP	3.9380	IN.
SCALE	0.0175	

# WING W11 LATERAL DATA (CANVTR=20 DEG)



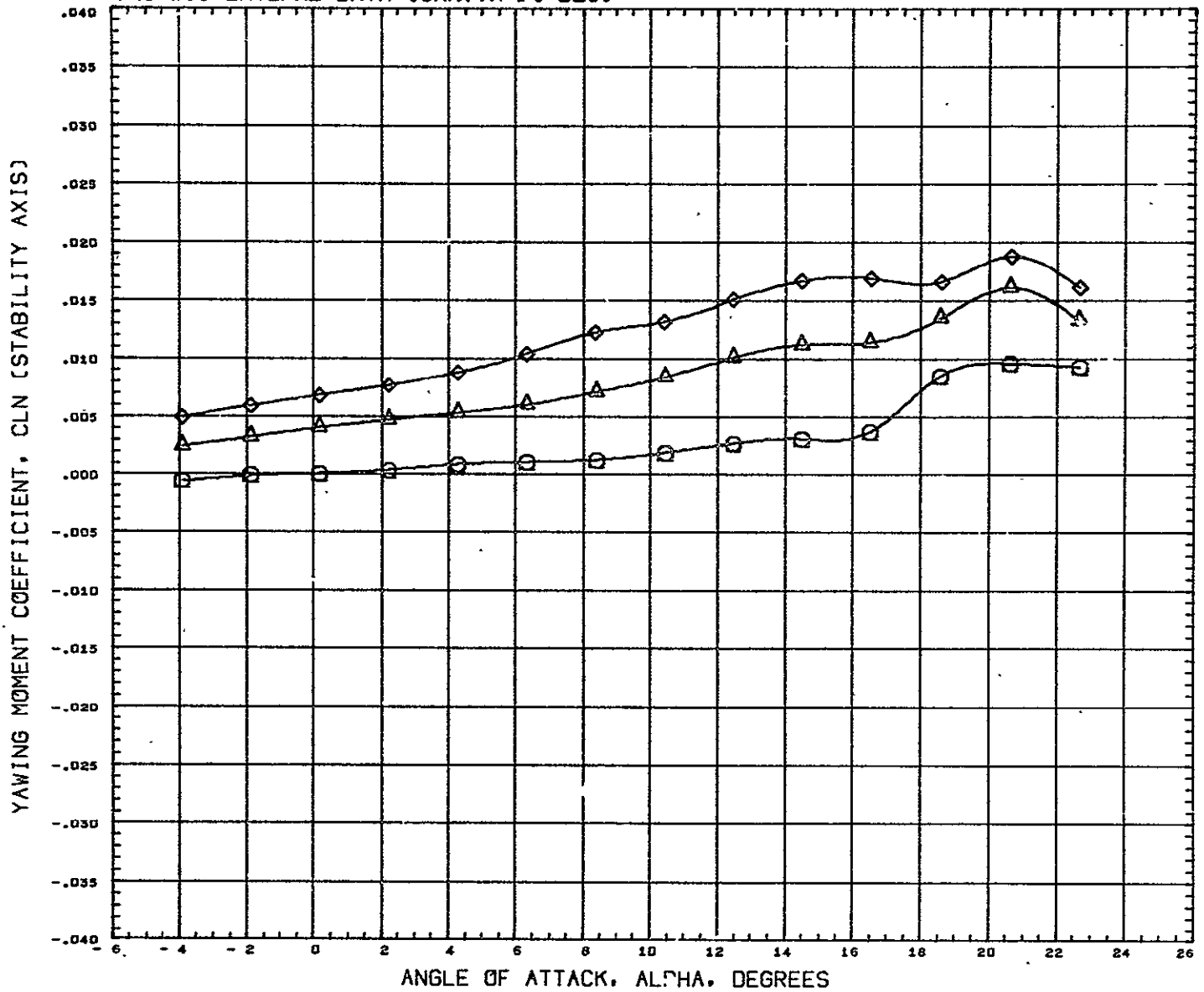
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	BETA	PARAMETRIC VALUES			
○	0.000	60.000	ELEVTR	0.000	
△	4.000	AILRON	0.000	RUDDER	0.000
◇	8.000	CANARD	1.000	CANVTR	20.000
		CANRON	0.000	CFLAPR	0.000

DATA HIST. CODE HVV

REFERENCE INFORMATION		
REFS	379.9004	SQ. IN.
REFL	15.5390	IN.
REFB	28.9800	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# WING W11 LATERAL DATA (CANVTR=20 DEG)

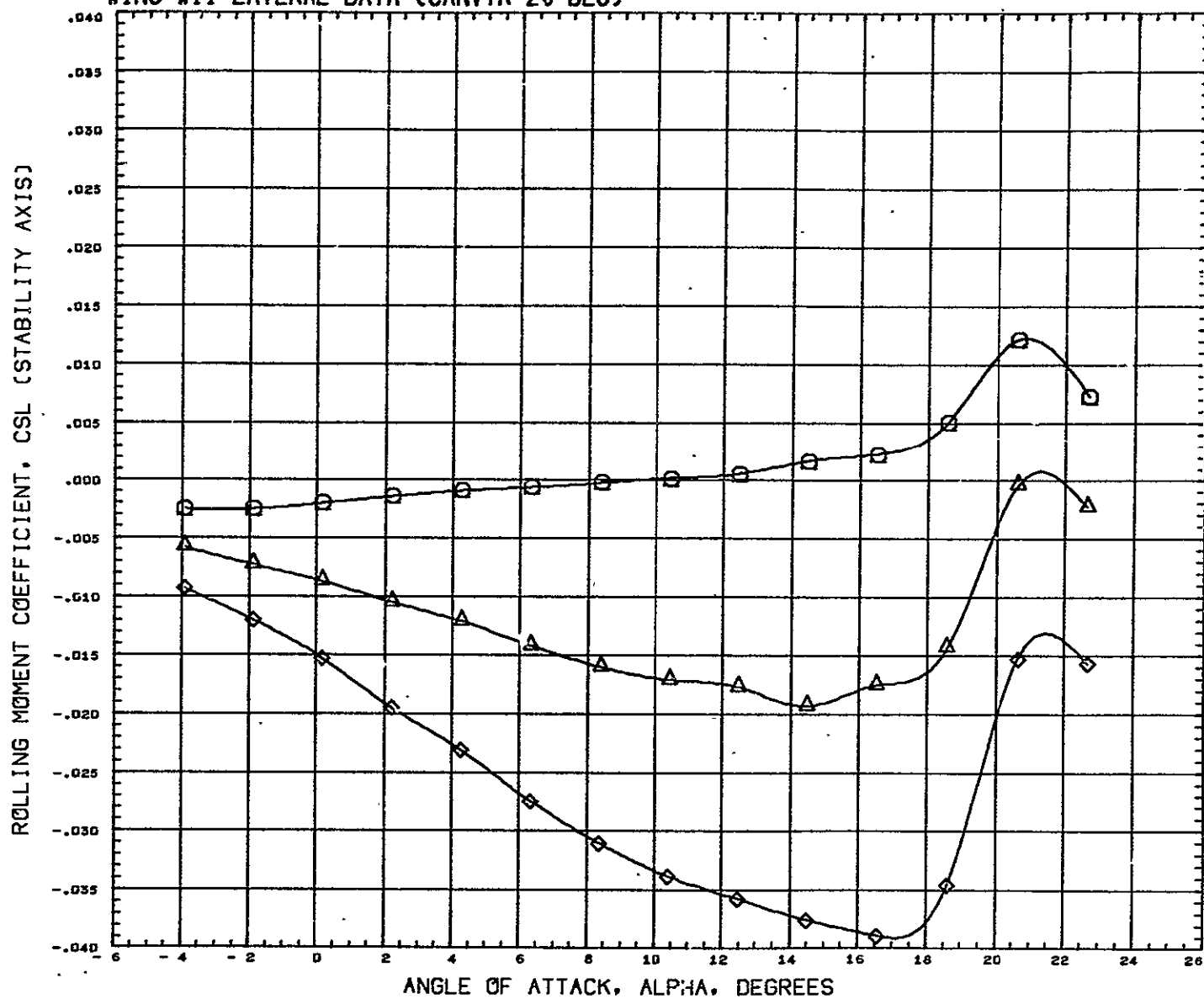


SYMBOL	BETA	PARAMETRIC VALUES			
□	0.000	Q	60.000	ELEVTR	0.000
△	4.000	AILRON	0.000	RUDDER	0.000
◇	8.000	CANARD	1.000	CANVTR	20.000
		CANRON	0.000	CFLAPR	0.000

DATA HIST. CODE MVV

REFERENCE INFORMATION		
REFS	379.9004	sq. in.
REFL	15.5390	in.
REFB	28.9800	in.
XMRP	33.4360	in.
YMRP	0.0000	in.
ZMRP	3.9380	in.
SCALE	0.0175	

# WING W11 LATERAL DATA (CANVTR=20 DEG)

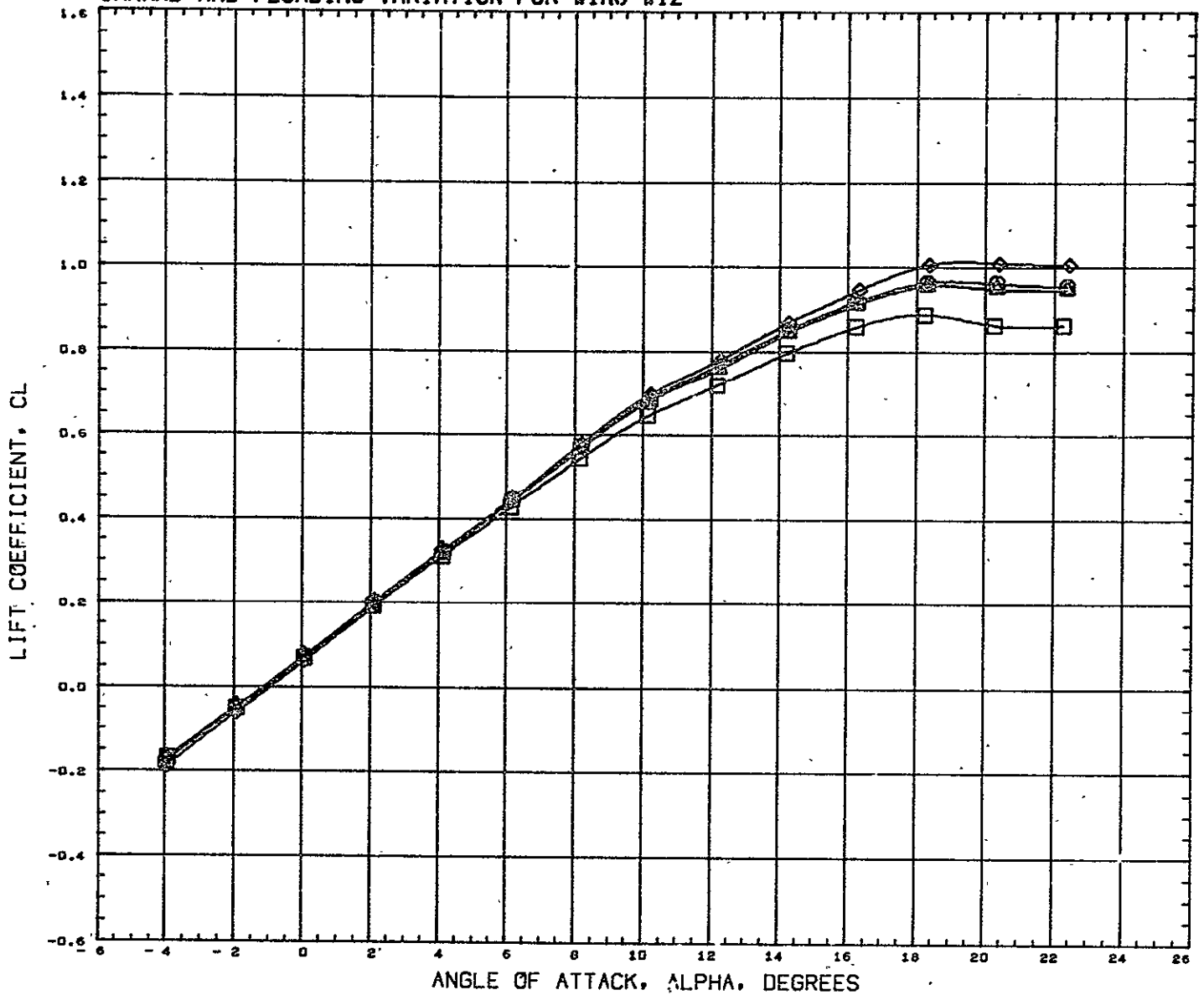


SYMBOL	BETA	PARAMETRIC VALUES			
□	0.000	Q	60.000	ELEVTR	0.000
△	4.000	AILRON	0.000	RUDDER	0.000
◇	8.000	CANARD	1.000	CANVTR	20.000
		CANRON	0.000	CFLAFR	0.000

DATA HIST. CODE HVV

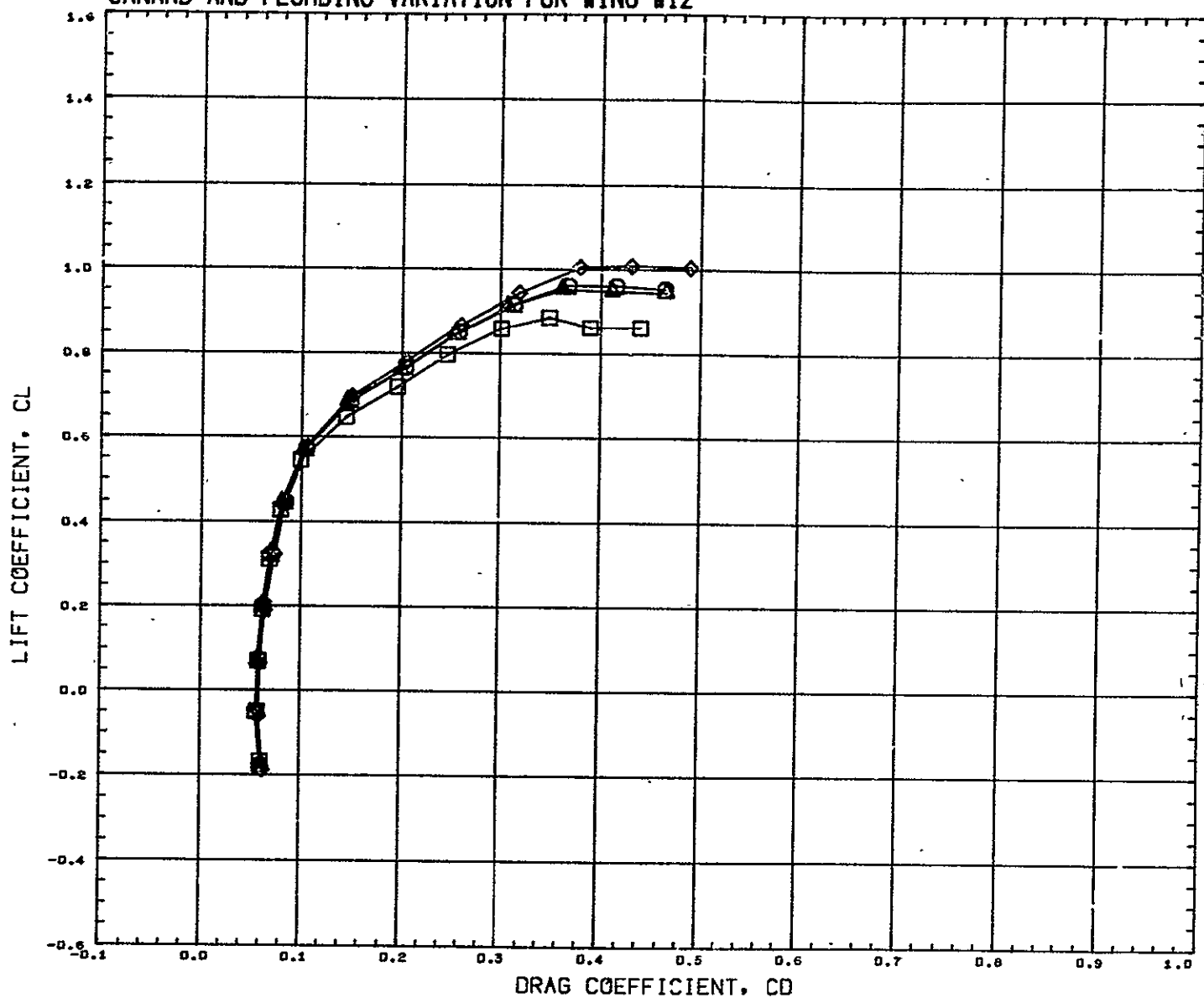
REFERENCE INFORMATION		
REFS	379.9004	SQ. IN
REFL	15.5390	IN.
REFB	28.9800	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# CANARD AND PLUMBING VARIATION FOR WING W12



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ICND01)	GDLST 587-D B19W12V7C4 (POS. 1)	1.000	0.000	0.000	90.000	REFS 257.9004 SQ. IN
(ICND02)	GDLST 587-D B19W12V7C4 (POS. 1)	1.000	0.000	0.600	90.000	REFL 9.0560 IN.
(ICND03)	GDLST 587-D B19W12V7C5 (POS. 1)	1.000	0.000	0.000	60.000	REFB 32.1300 IN.
(ICND04)	GDLST 587-D B19W12V7C7 (POS. 1)	1.000	0.000	0.000	60.000	XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9380 IN.
						SCALE 0.0175
BETA	0.000					

# CANARD AND PLUMBING VARIATION FOR WING W12

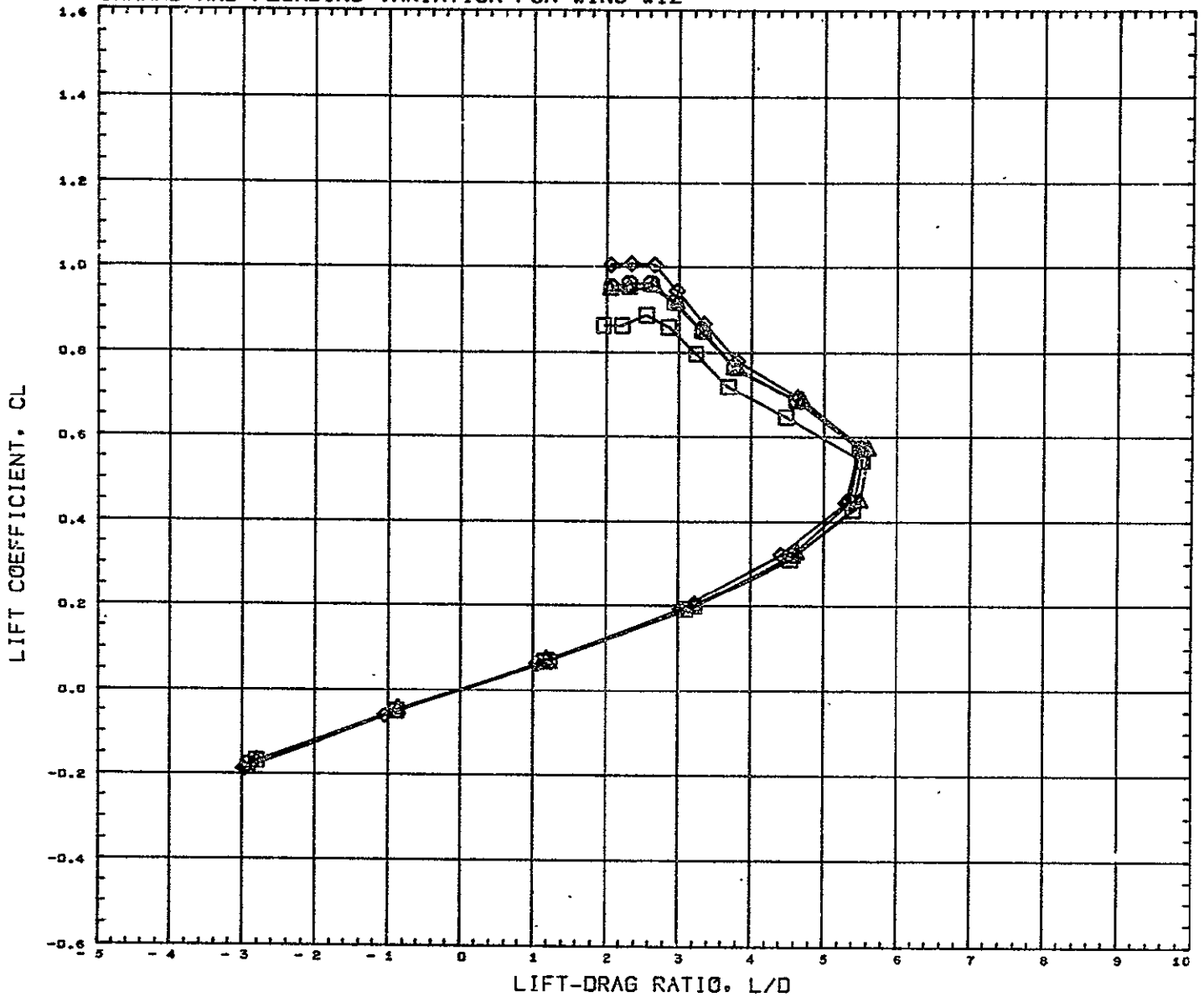


DATA SET SYMBOL	CONFIGURATION	DESCRIPTION
(ICMD01)	GDLST 587-0	B19W12V7P1C4 (POS. 1)
(ICMD02)	GDLST 587-0	B19W12V7C4 (POS. 1)
(ICMD03)	GDLST 587-0	B19W12V7C5 (POS. 1)
(ICMD04)	GDLST 587-0	B19W12V7C7 (POS. 1)

BETA 0.000

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION	
1.000	0.000	0.000	60.000	REFS	257.9004 SQ. IN.
1.000	0.000	0.000	60.000	REFL	9.0560 IN.
1.000	0.000	0.000	60.000	REFB	32.1300 IN.
1.000	0.000	0.000	60.000	XMRP	33.4360 IN.
				YMRP	0.0000 IN.
				ZMRP	3.9383 IN.
				SCALE	0.0175

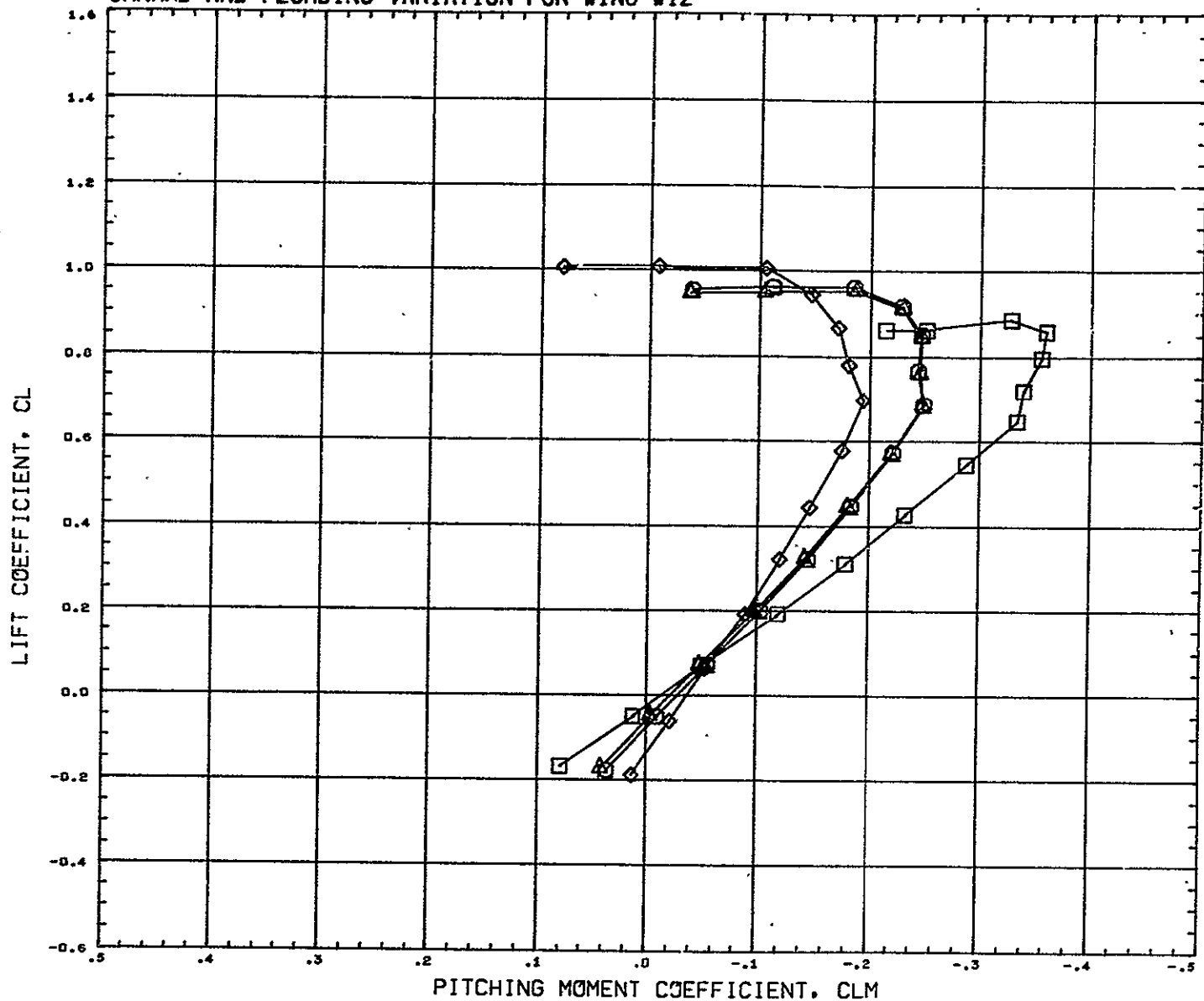
# CANARD AND PLUMBING VARIATION FOR WING W12



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION	
(ICND01)	GDLST 587-D B19W12V7P1C4 (POS. 1)	1.000	0.000	0.000	40.000	REFS	257.9004 SQ. IN.
(ICND02)	GDLST 587-D B19W12V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	9.0560 IN.
(ICND03)	GDLST 587-D B19W12V7C5 (POS. 1)	1.000	0.000	0.000	60.000	REFB	32.1300 IN.
(ICND04)	GDLST 587-D B19W12V7C7 (POS. 1)	1.000	0.000	0.000	60.000	XMRP	33.4360 IN.
						YMRP	0.0000 IN.
						ZMRP	3.9387 IN.
						SCALE	0.0175

BETA 0.000

# CANARD AND PLUMBING VARIATION FOR WING W12

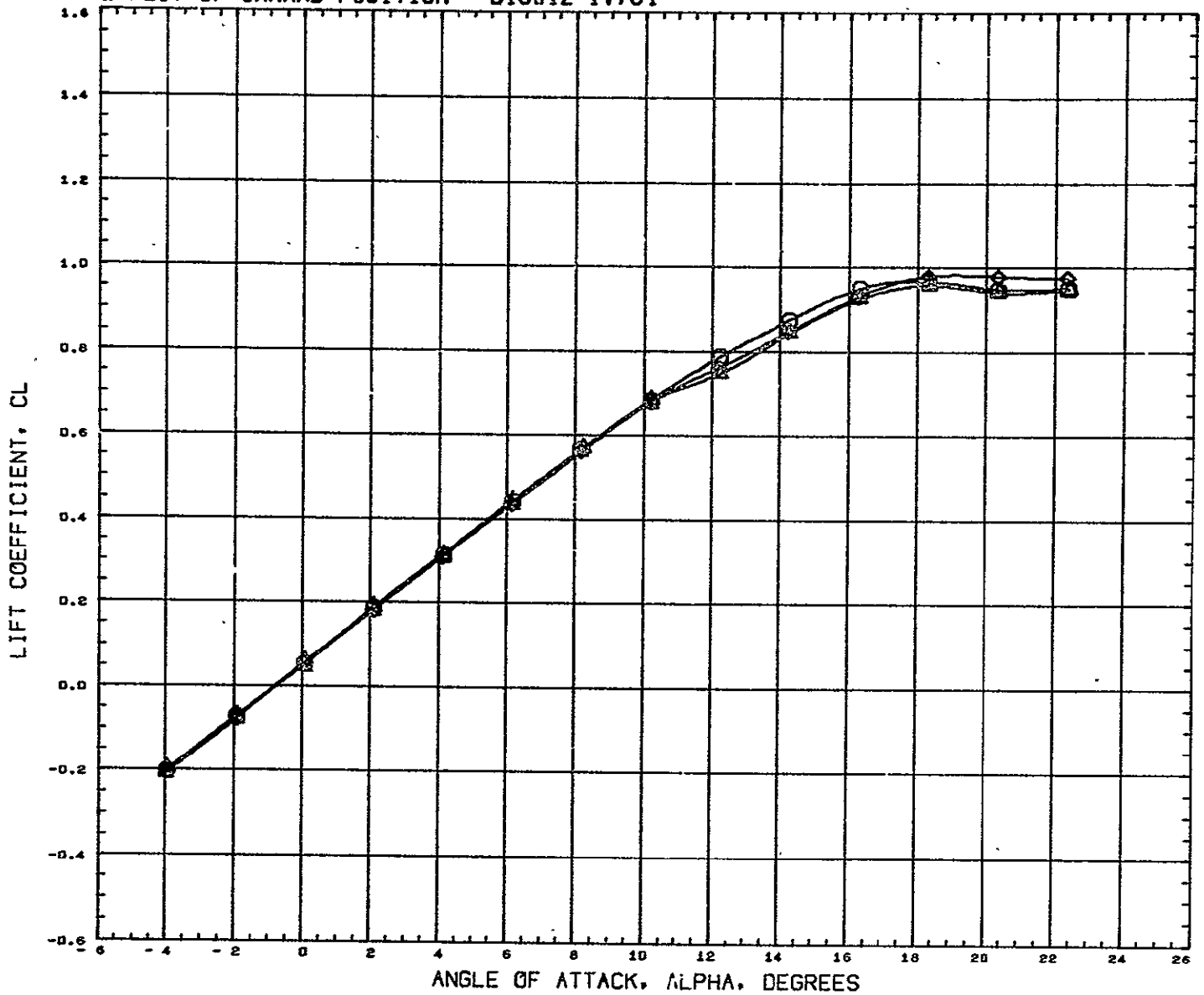


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION	
(ICM001)	△	GDLST 587-D B19W12V7P1C4 (POS. 1)	1.000	0.000	0.000	50.000	REFS	257.9004 SQ. IN
(ICM002)	△	GDLST 587-D B19W12V7C4 (POS. 1)	1.000	0.000	0.000	64.000	REFL	9.0560 IN.
(ICM003)	◇	GDLST 587-D B19W12V7C5 (POS. 1)	1.000	0.000	0.000	60.000	REFB	32.4300 IN.
(ICM004)	□	GDLST 587-D B19W12V7C7 (POS. 1)	1.000	0.000	0.000	60.000	XHRP	33.4360 IN.
							YHRP	0.0000 IN.
							ZHRP	3.9380 IN.
							SCALE	0.0175

BETA 0.000



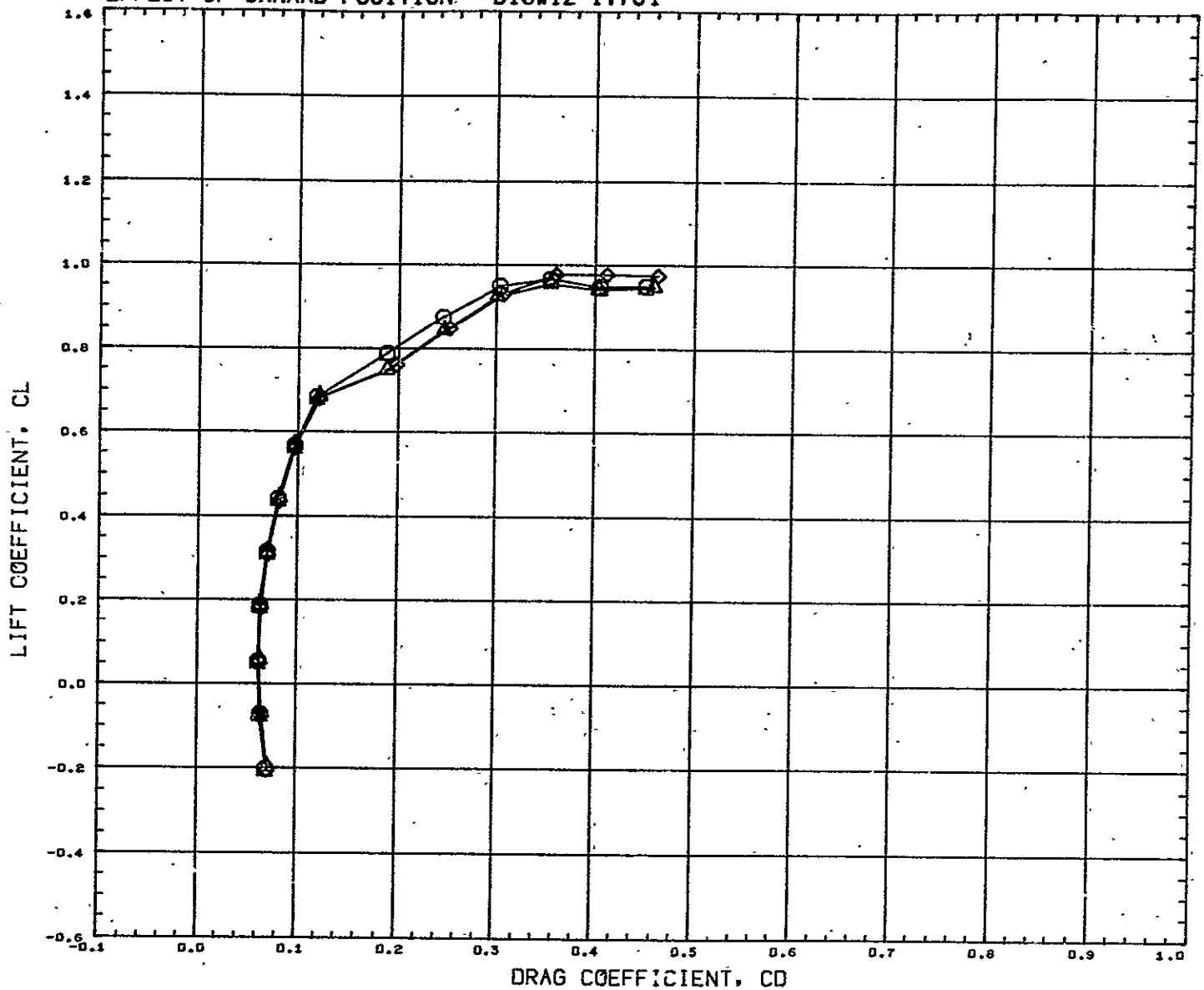
# EFFECT OF CANARD POSITION - B19W12-1V7C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ICMD06)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	7.030	REFS 257.9004 SQ. IN
(ACMD11)	GDLST 587-D B19W12-1V7C4 (POS. 2)	2.000	0.000	0.000	60.000	REFL 9.0560 IN.
(ACMD12)	GDLST 587-D B19W12-1V7C4 (POS. 3)	3.000	0.000	0.000	60.000	REFS 32.1300 IN.
						XMRP 33.4360 IN.
						YMRP 0.0000 IN.
						ZMRP 3.9360 IN.
						SCALE 0.0175

BETA 0.000

# EFFECT OF CANARD POSITION - B19W12-1V7C4

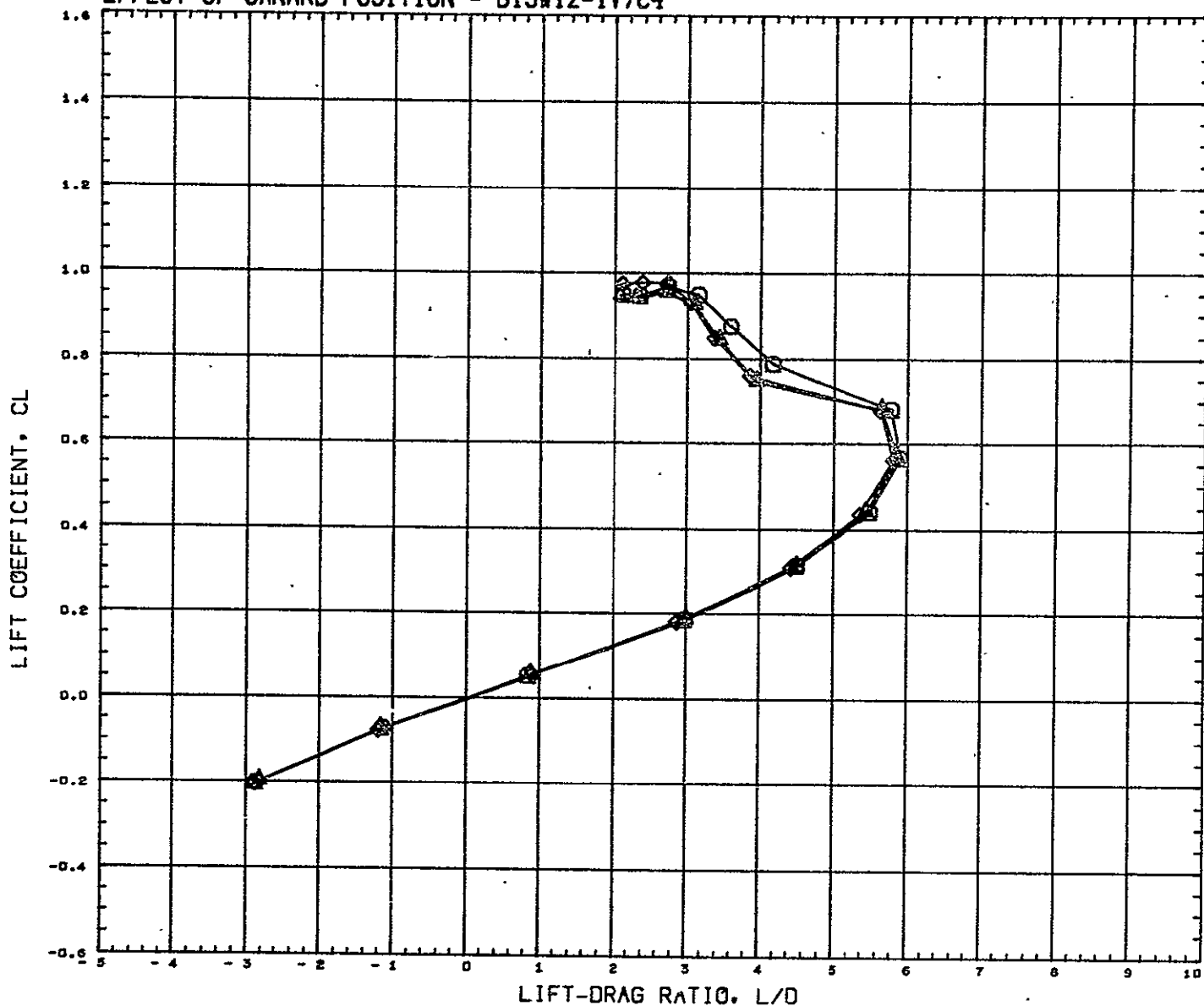


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICND06)	GDLST 587-D B19W12-1V7C4 (POS. 1)
(ACND11)	GDLST 587-D B19W12-1V7C4 (POS. 2)
(ACND12)	GDLST 587-D B19W12-1V7C4 (POS. 8)

CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	55.000	REFS 257.9004 SQ. IN.
2.000	0.000	0.000	63.000	REFL 9.0560 IN.
8.000	0.000	0.000	60.000	REFB 32.1300 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9320 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF CANARD POSITION - B19W12-1V7C4

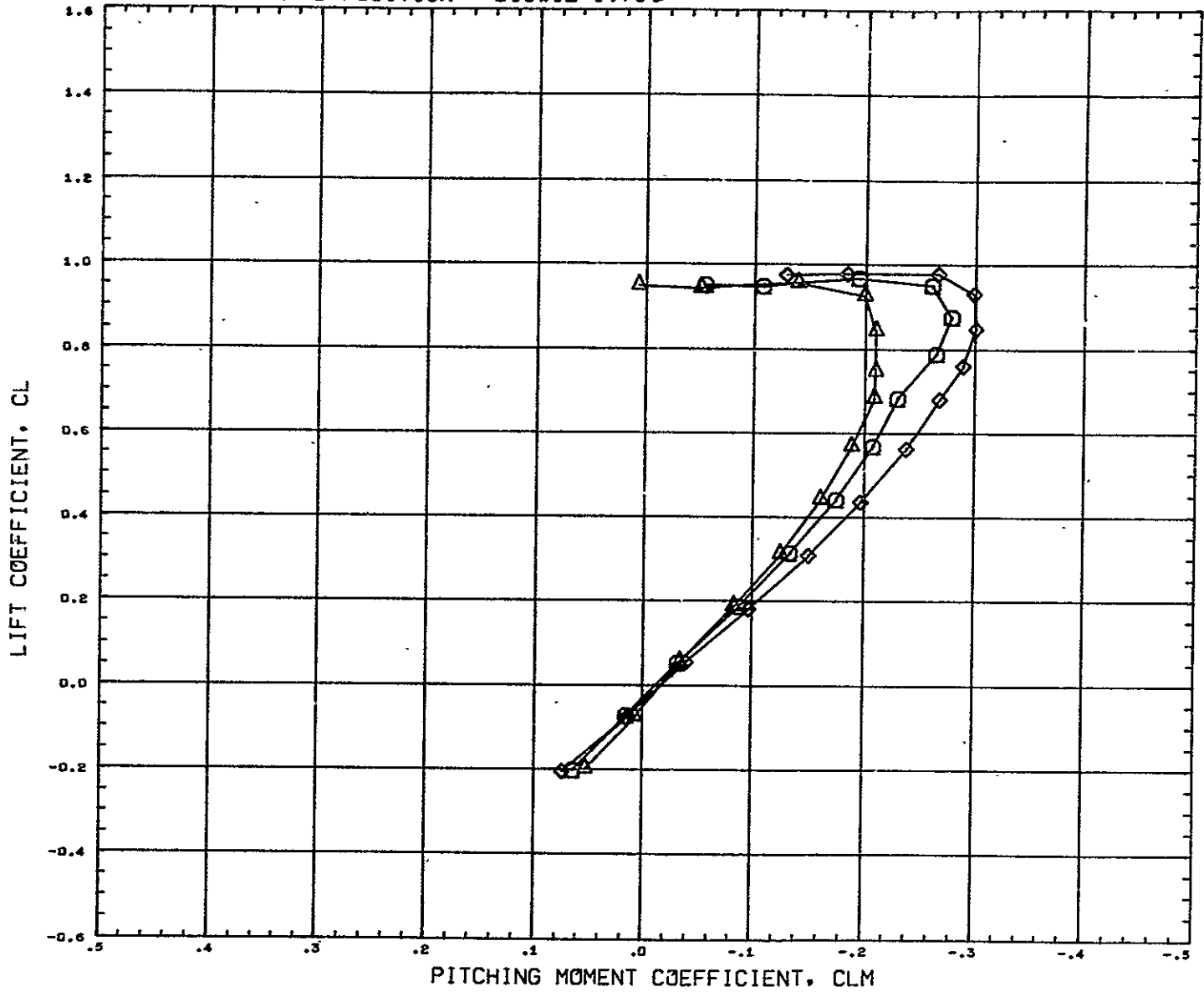


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(1CND06)	GDLST 587-0 B19W12-1V7C4 (POS. 1)
(1CND11)	GDLST 587-0 B19W12-1V7C4 (POS. 2)
(1CND12)	GDLST 587-0 B19W12-1V7C4 (POS. 8)

CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	60.000	REFS 257.9004 SQ. IN
2.000	0.000	0.000	60.000	REFL 9.0560 IN.
8.000	0.000	0.000	60.000	REFB 32.1300 IN.
				XHRP 33.4360 IN.
				YHRP 0.0000 IN.
				ZHRP 3.9380 IN.
				SCALE 0.0175

BETA 0.000

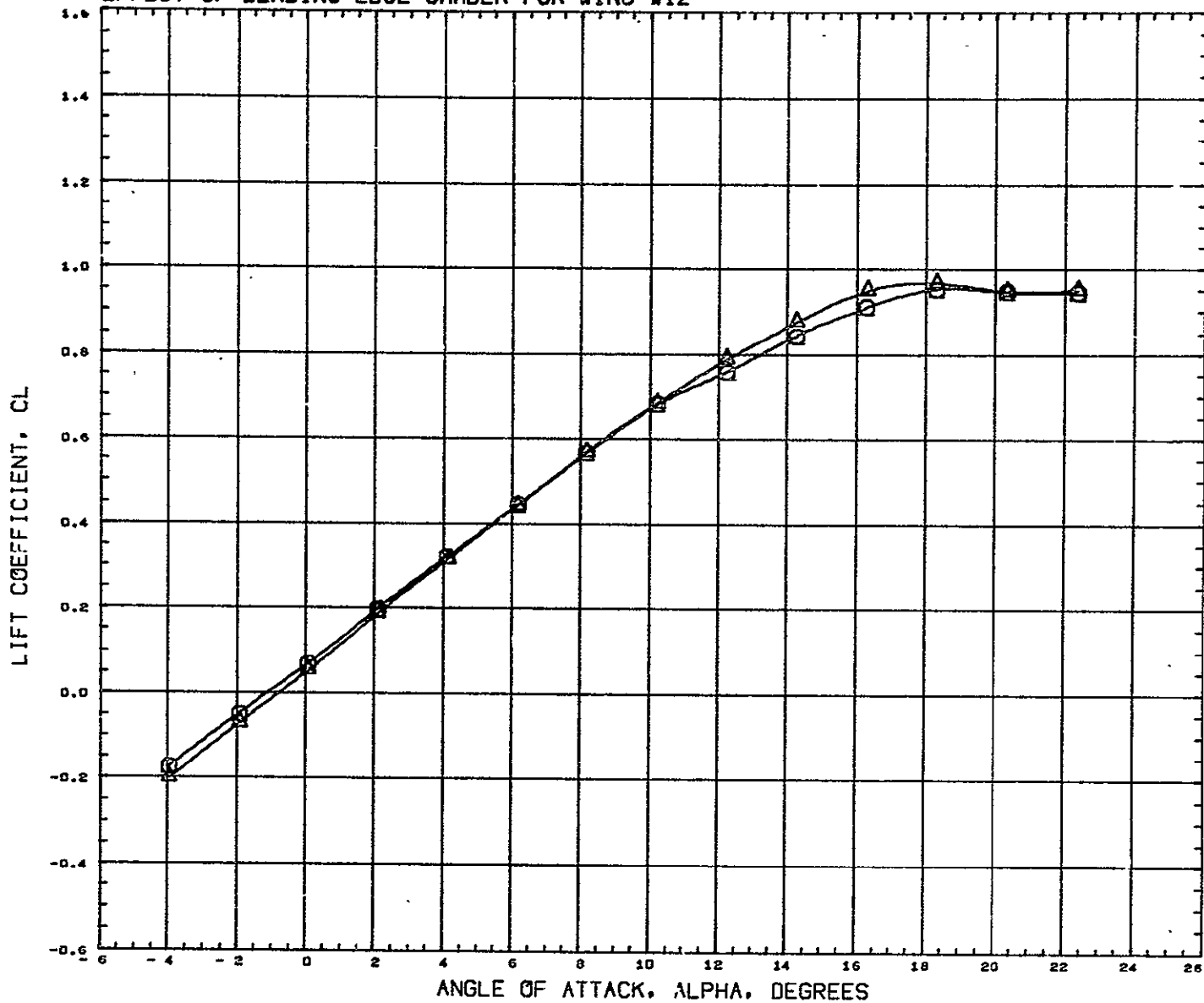
# EFFECT OF CANARD POSITION - B19W12-1V7C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICMD06)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	50.000	REFS	257.9004	SQ. IN.
(ACMD11)	GDLST 587-D B19W12-1V7C4 (POS. 2)	2.000	0.000	0.000	60.000	REFL	9.0560	IN.
(ACMD12)	GDLST 587-D B19W12-1V7C4 (POS. 8)	8.000	0.000	0.000	60.000	REFB	32.1300	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9389	IN.
						SCALE	0.0175	

BETA 0.000

# EFFECT OF LEADING EDGE CAMBER FOR WING W12



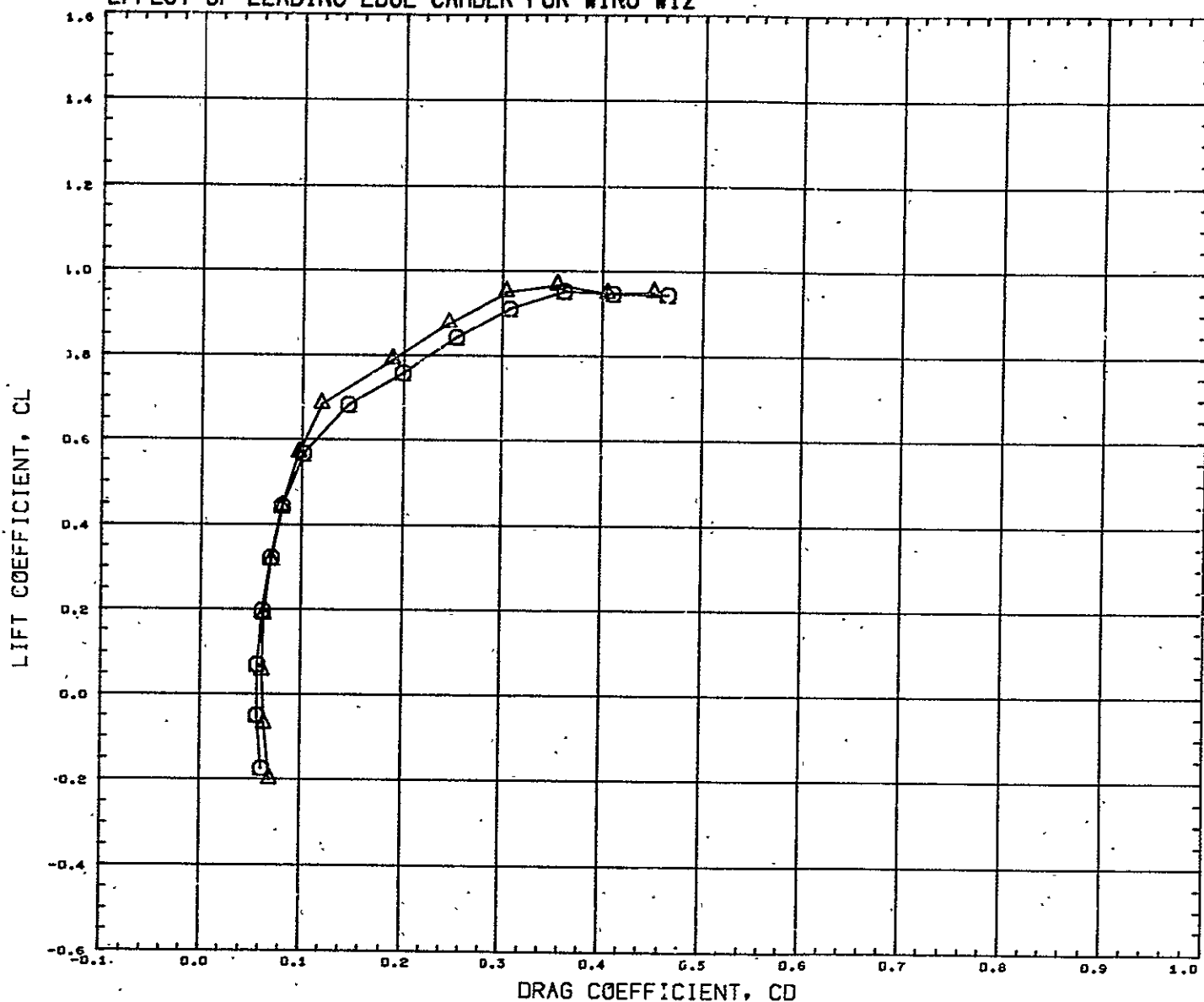
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ICND02)  $\square$  GDLST 587-0 B19W12V7C4 (POS. 1)  
 (ICND06)  $\triangle$  GDLST 587-0 B19W12-1V7C4 (POS. 1)

CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 50.000  
 1.000 0.000 0.000 6.000

REFERENCE INFORMATION  
 REFS 257.9004 SQ. IN  
 REFL 9.0560 IN.  
 REFS 32.1300 IN.  
 XHRP 33.4360 IN.  
 YHRP 0.0000 IN.  
 ZHRP 3.9360 IN.  
 SCALE 0.0175

BETA 0.000

# EFFECT OF LEADING EDGE CAMBER FOR WING W12



DATA SET SYMBOL CONFIGURATION DESCRIPTION

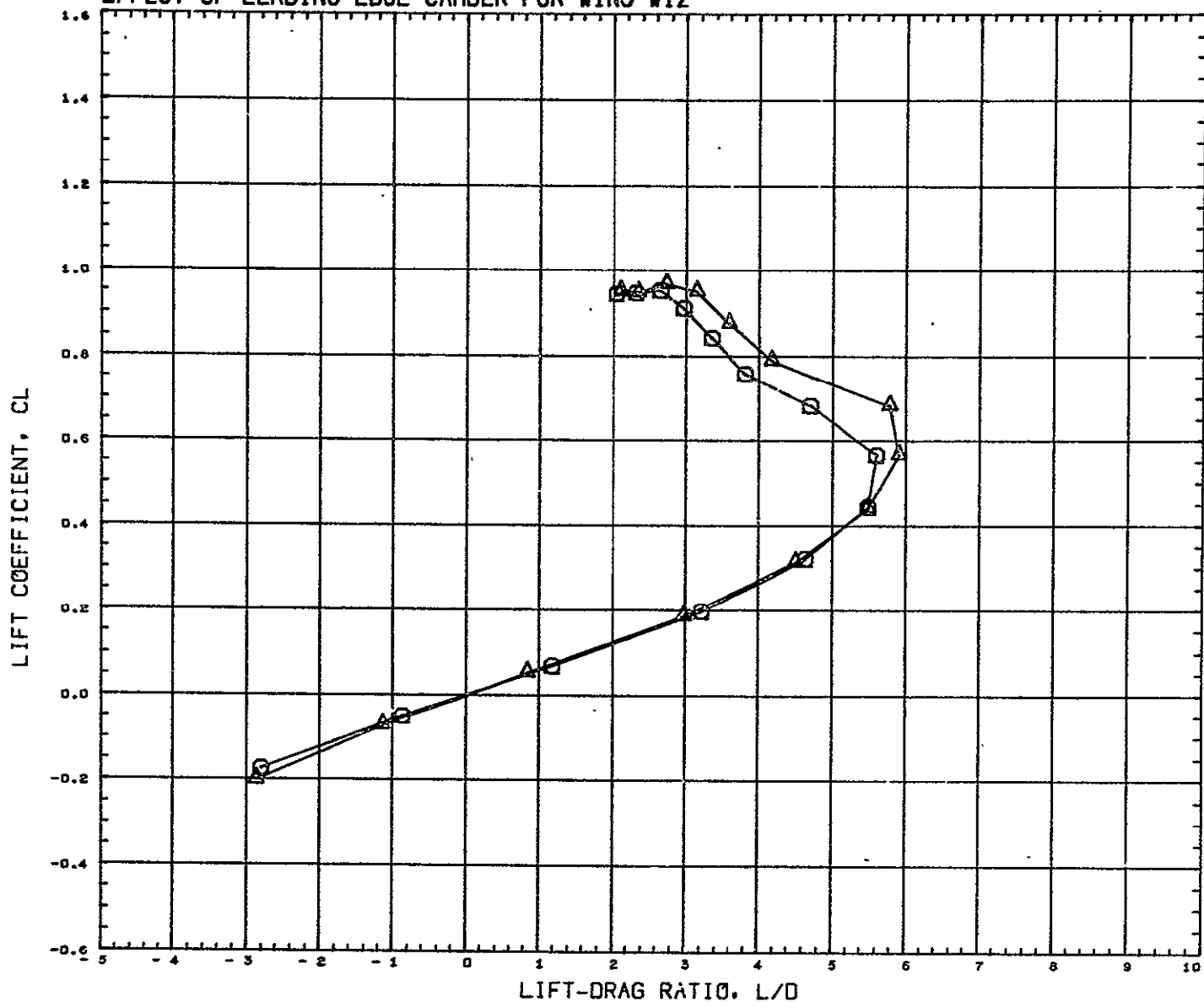
(ICMD02)  $\circ$  GDLST 587-0 B19W12V7C4 (POS. 1)  
 (ICMD06)  $\triangle$  GDLST 587-0 B19W12-1V7C4 (POS. 1)

CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 15.000  
 1.000 0.000 0.000 2.000

REFERENCE INFORMATION  
 REFS 257.9004 SQ. IN.  
 REFL 9.0560 IN.  
 REFB 32.1300 IN.  
 XMRP 33.4360 IN.  
 YMRP 0.0000 IN.  
 ZMRP 3.9310 IN.  
 SCALE 0.0175

BETA 0.000

# EFFECT OF LEADING EDGE CAMBER FOR WING W12

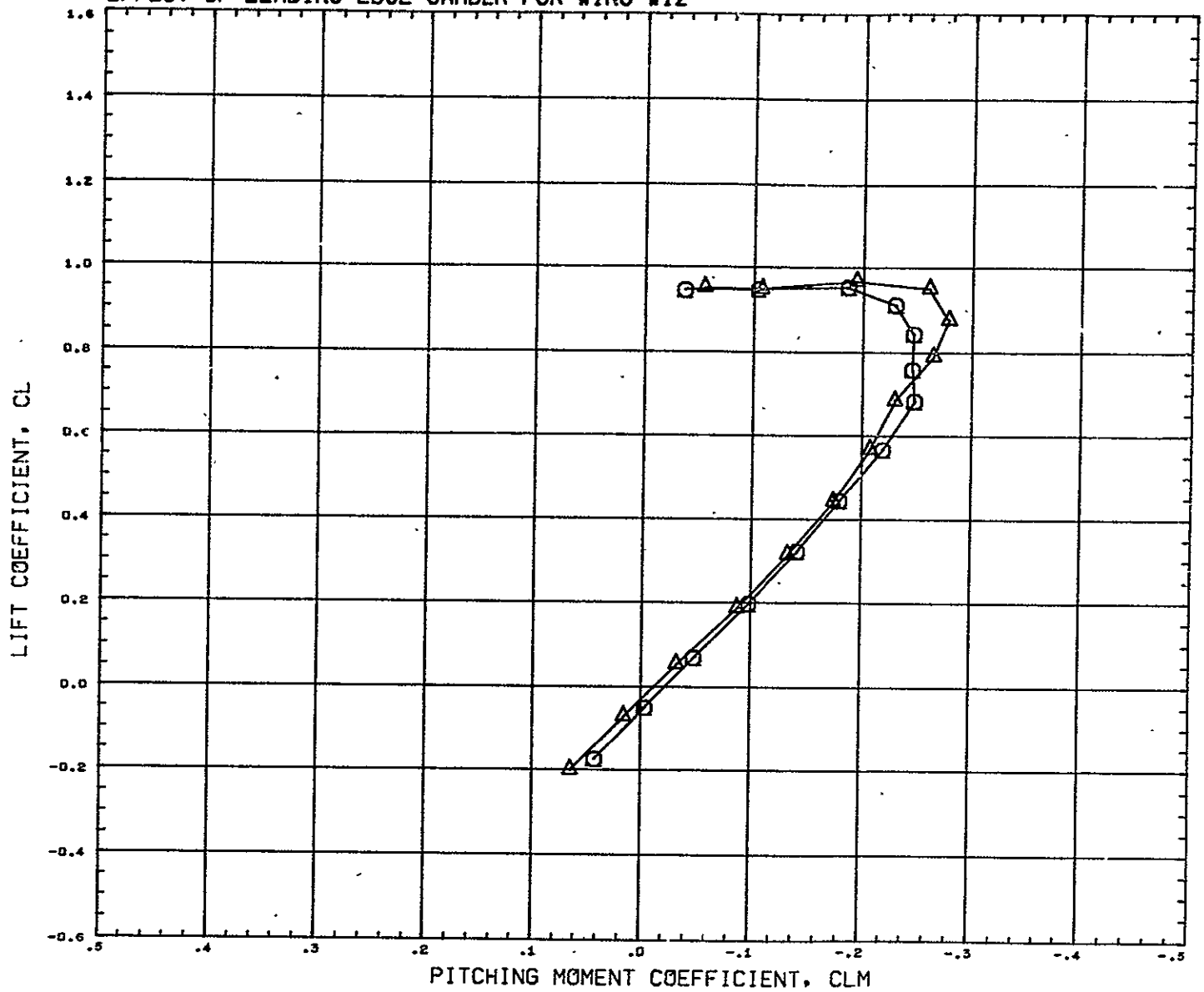


DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ICHD02)  $\square$  GDLST 587-0 B19W12V7C4 (POS. 1)  
 (ICHD06)  $\triangle$  GDLST 587-0 B19W12-1V7C4 (POS. 1)

CANARD	CANVT	CFLA	Q	REFERENCE INFORMATION
1.000	0.000	0.000	10.000	REFS 257.9004 SQ. IN
1.000	0.000	0.000	60.000	REFL 9.0560 IN.
				REFB 32.1300 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9382 IN.
				SCALE 0.0175

BETA 0.000

# EFFECT OF LEADING EDGE CAMBER FOR WING W12



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ICMD02) GDLST 587-D B19W12V7C4 (POS. 1)  
 (ICMD06) GDLST 587-D B19W12-1V7C4 (POS. 1)

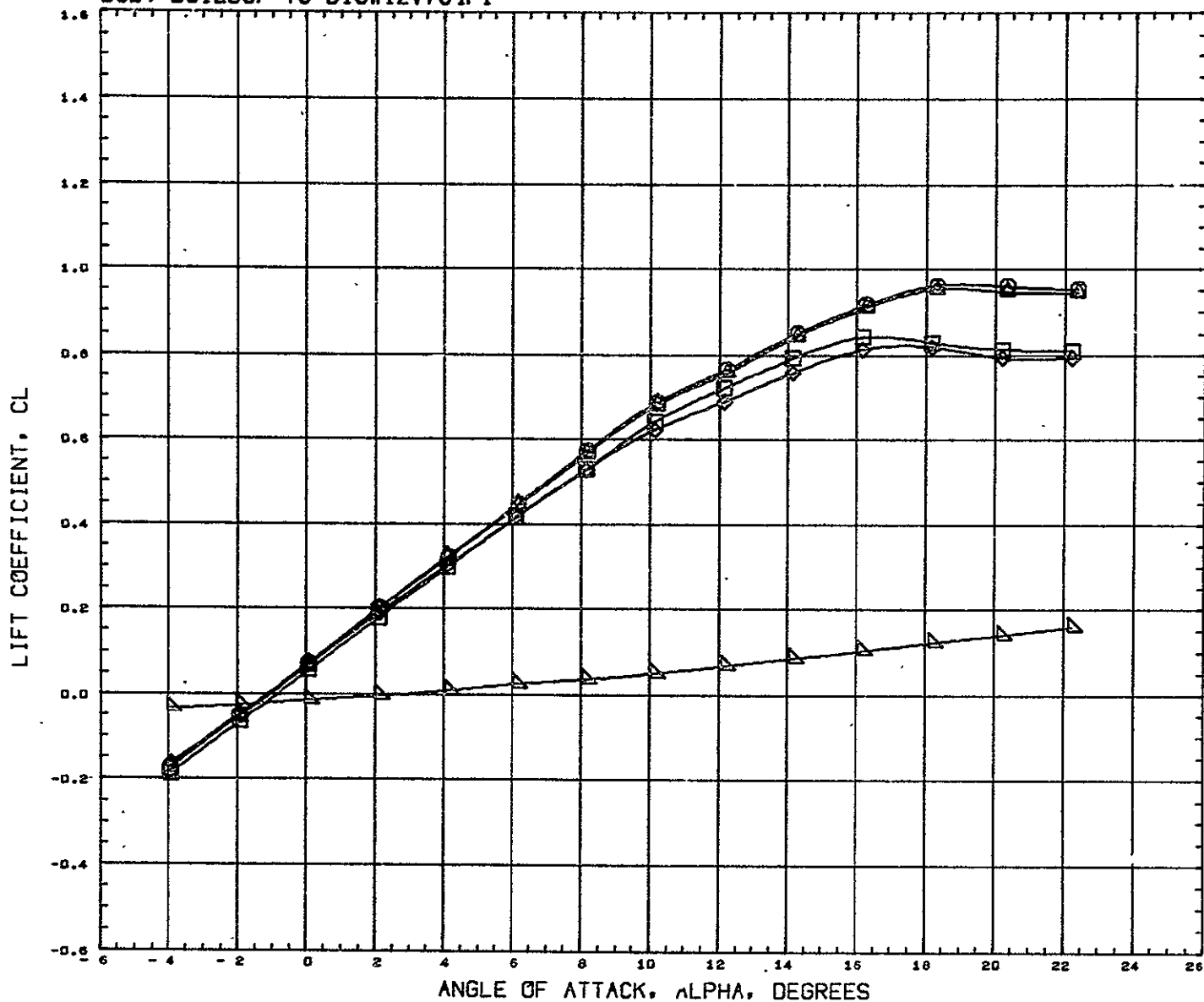
CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 60.000  
 1.000 0.000 0.000 30.000

REFERENCE INFORMATION  
 REFS 257.9004 SQ. IN.  
 REFL 9.0560 IN.  
 REFB 32.1300 IN.  
 XMRP 33.4360 IN.  
 YMRP 0.0000 IN.  
 ZMRP 3.9380 IN.  
 SCALE 0.0175

BETA 0.000



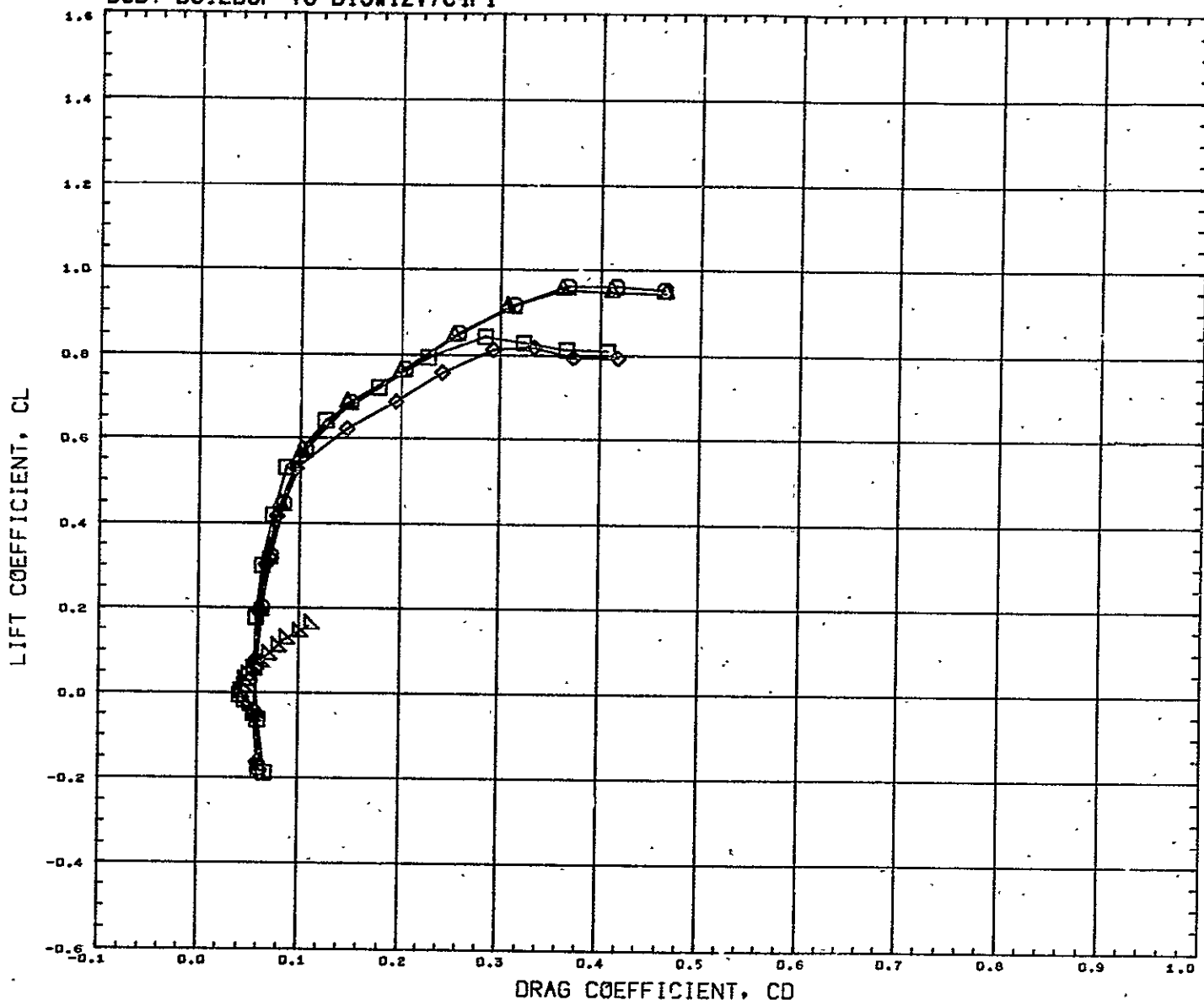
# BODY BUILDUP TO B19W12V7C4P1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICND01)	GDLST 587-D B19W12V7P1C4 (POS. 1)	1.000	0.000	0.000	1.00	REFS	257.9004	SG. IN
(ICND02)	GDLST 587-D B19W12V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	9.0560	IN.
(ICND05)	GDLST 587-D B19W12V7				60.000	REFB	32.1300	IN.
(ICND10)	GDLST 587-D B19W12-1				60.000	XMRP	33.4360	IN.
(ICND51)	GDLST 587-D B19				60.400	YMRP	0.0000	IN.
						ZMRP	3.9386	IN.
						SCALE	0.0175	
BETA	0.000							

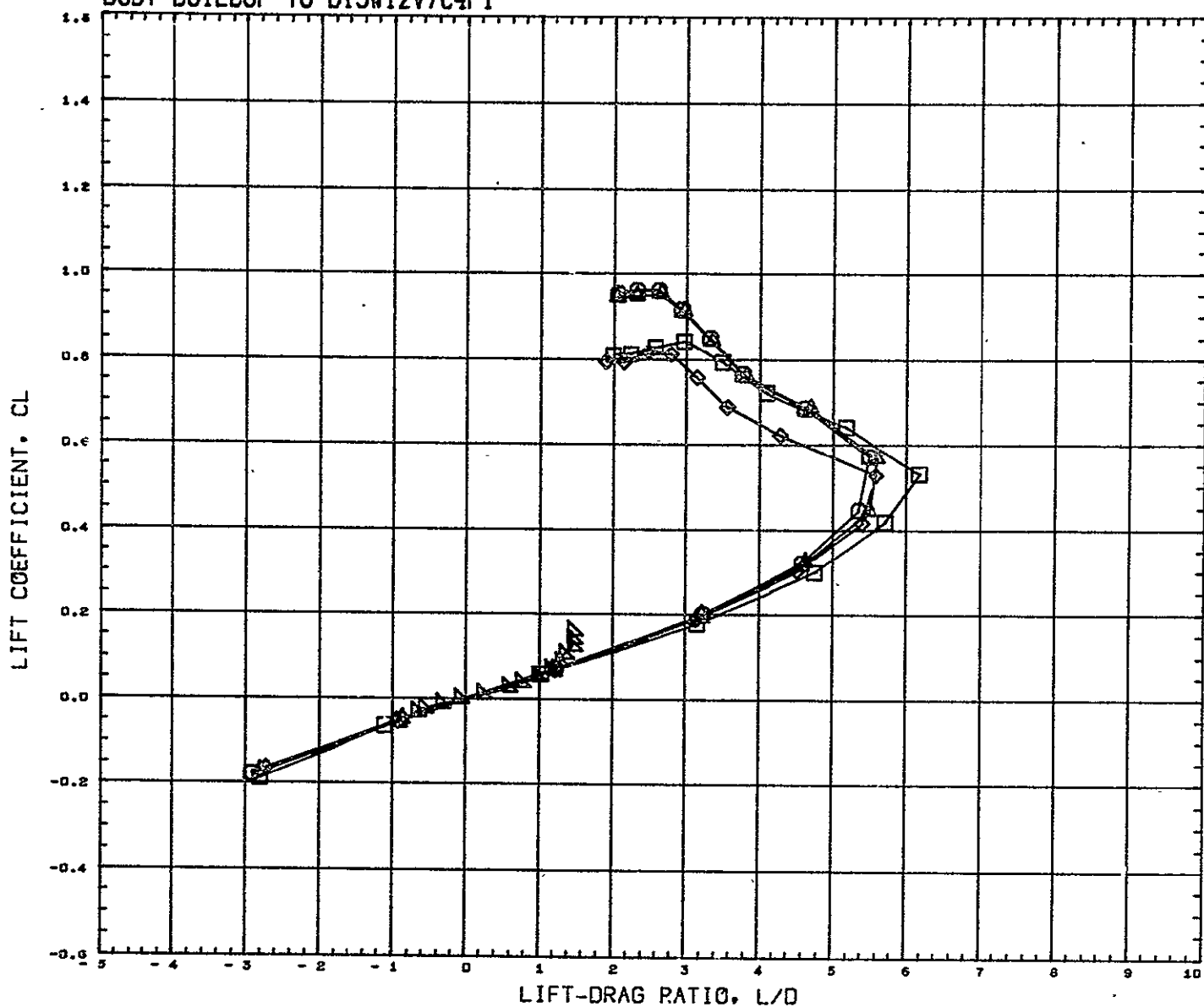
5

# BODY BUILDUP TO B19W12V7C4P1



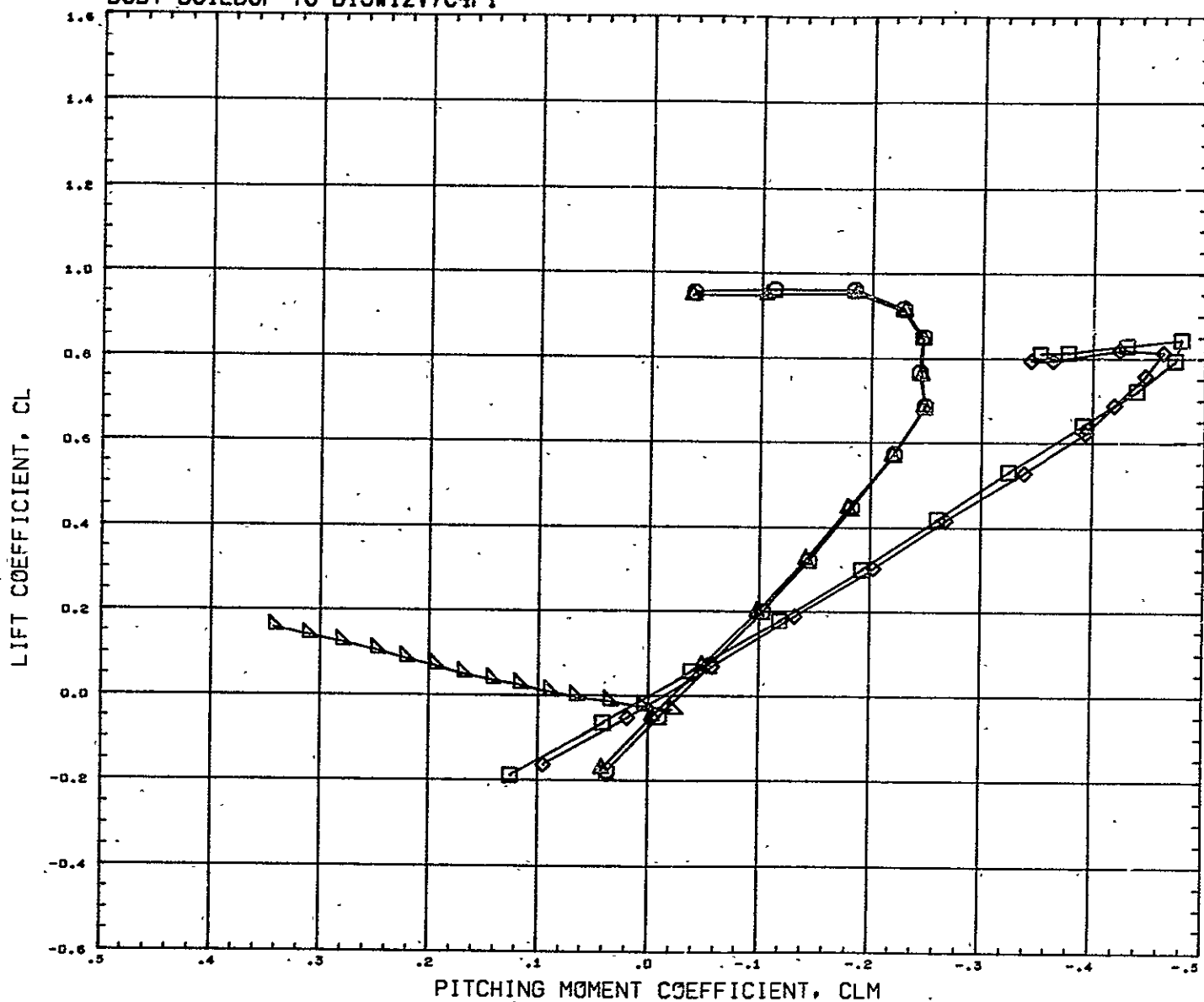
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICMD01)	GDLST 587-0 B19W12V7F1C4 (POS. 1)	1.000	0.000	0.000	50.000	REFS	257.9004	Sq. In
(ICMD02)	GDLST 587-0 B19W12V7C4 (POS. 1)	1.000	0.000	0.000	50.000	REFL	9.0560	IN.
(ICMD05)	GDLST 587-0 B19W12V7				60.000	REFB	32.1300	IN.
(ICMD10)	GDLST 587-0 B19W12-1				60.000	XMRP	33.4360	IN.
(ICMD51)	GDLST 587-0 B19					YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
BETA	0.000							

# BODY BUILDUP TO B19W12V7C4P1



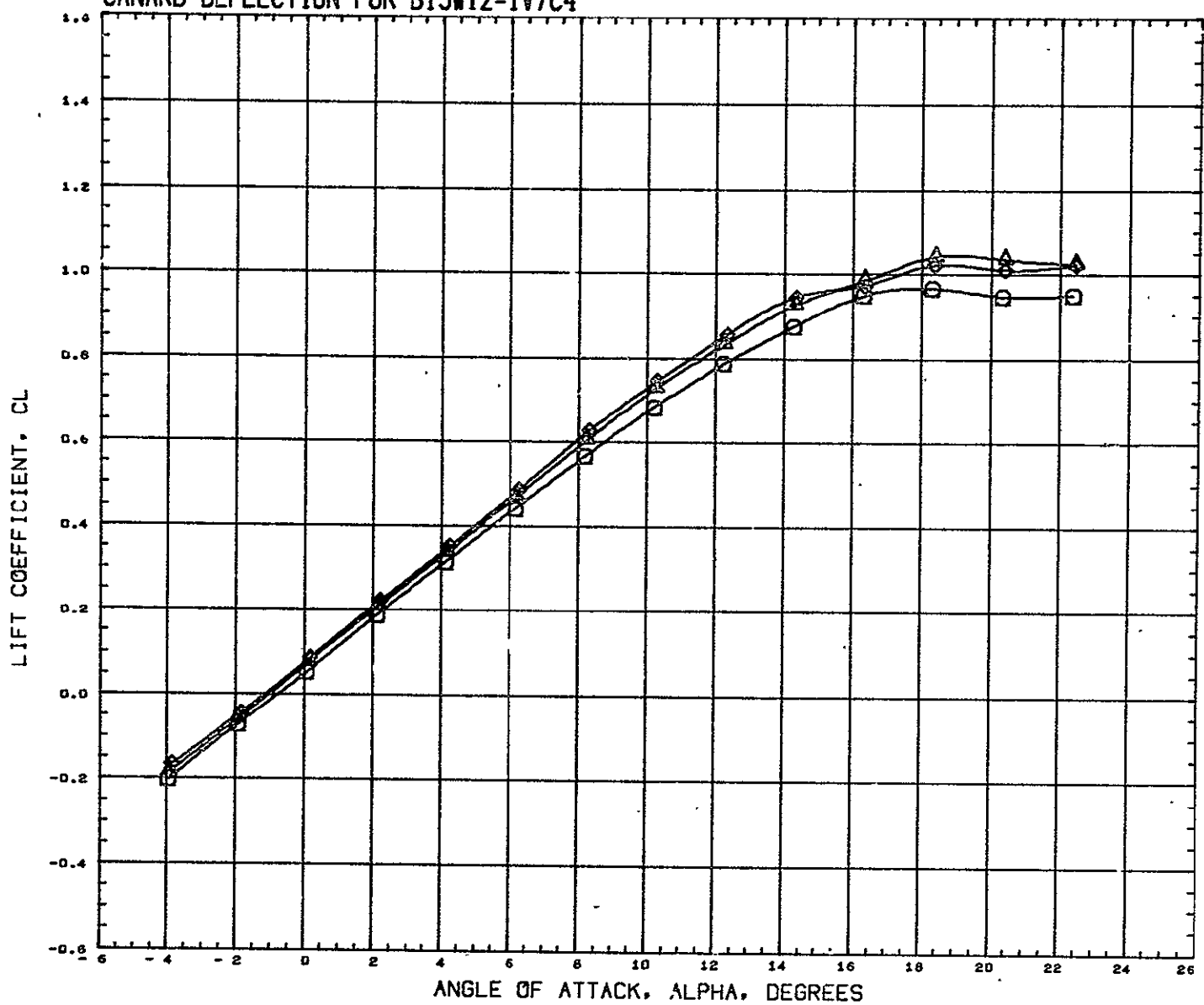
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVR	CFLAPR	Q	REFERENCE INFORMATION		
(1CHD01)	GDLST 587-D B19W12V7P1C4 (POS. 1)	1.000	0.009	0.000	60.000	REFS	257.9004	SQ. 1..
(1CHD02)	GDLST 587-D B19W12V7C4 (POS. 1)	1.000	0.006	0.000	1.000	REFL	9.0560	IN.
(1CHD03)	GDLST 587-D B19W12V7				60.000	REFB	32.1300	IN.
(1CHD10)	GDLST 587-D B19W12-1				60.000	XMRP	33.4360	IN.
(1CHD51)	GDLST 587-D B19				60.400	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0175	
BETA	0.000							

# BODY BUILDUP TO B19W12V7C4P1



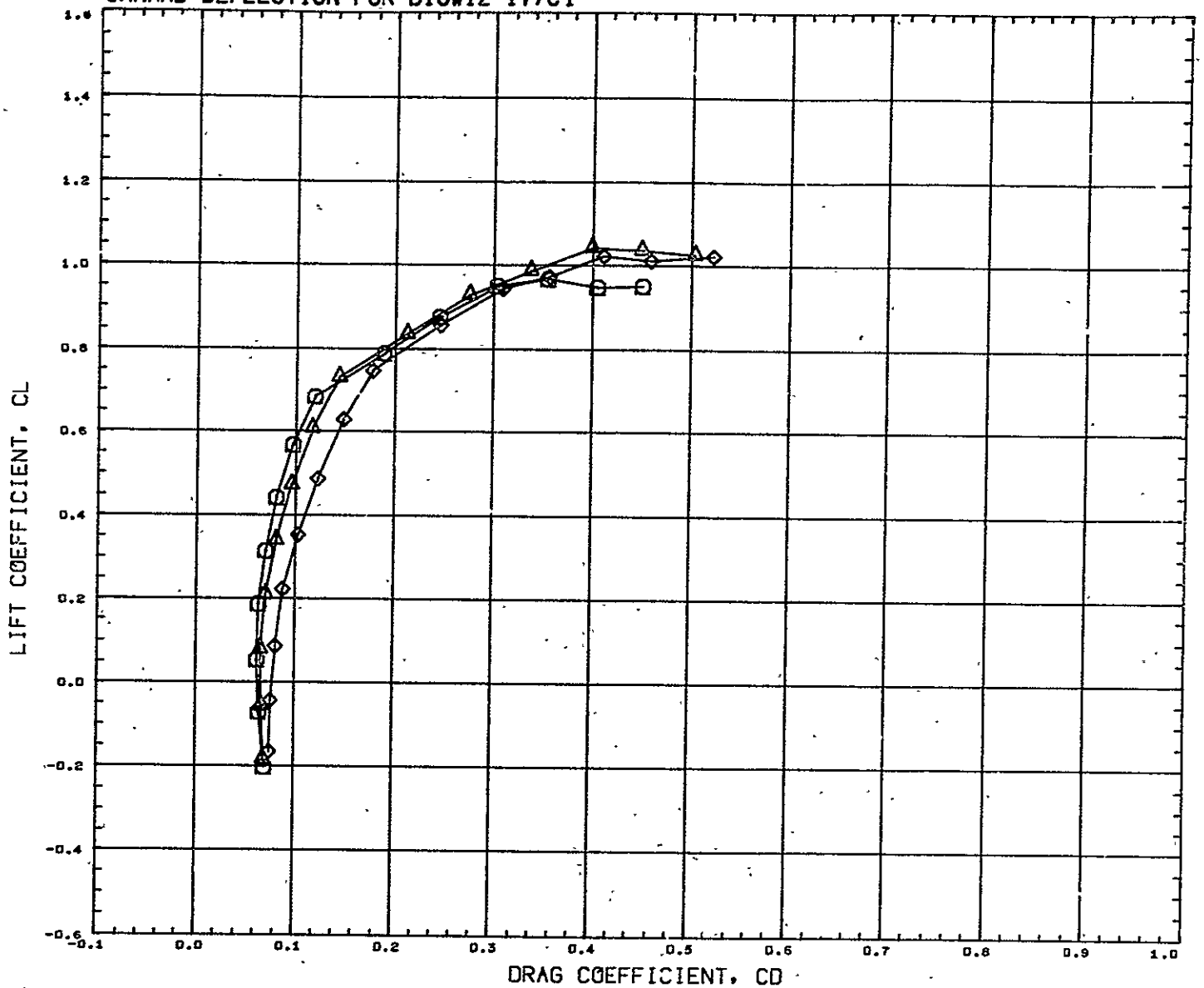
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ICND01)	GDLST 587-0 B19W12V7F1C4 (POS. 1)	1.000	0.000	0.000	50.000	REFS	257.9004	SQ. IN
(ICND02)	GDLST 587-0 B19W12V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFL	9.0560	IN.
(ICND05)	GDLST 587-0 B19W12V7				60.000	REFS	32.1300	IN.
(ICND10)	GDLST 587-0 B19W12V7				60.000	XMRP	33.4360	IN.
(ICND51)	GDLST 587-0 B19				60.400	YMRP	0.0000	IN.
						ZMRP	3.9380	IN.
						SCALE	0.0170	
BETA	0.000							

# CANARD DEFLECTION FOR B19W12-1V7C4



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANV1R	CFLAPR	Q	REFERENCE INFORMATION		
(1CHD06)	○	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS	257.9004	SQ. IN.
(1CHD07)	△	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	10.000	0.000	60.000	REFL	9.0560	IN.
(1CHD08)	◇	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	20.000	0.000	60.000	REFB	32.1300	IN.
							XMRP	33.4360	IN.
							YMRP	0.0000	IN.
							ZMRP	3.9380	IN.
							SCALE	0.0175	
BETA			0.000						

# CANARD DEFLECTION FOR B19W12-1V7C4



DATA SET SYMBOL CONFIGURATION DESCRIPTION

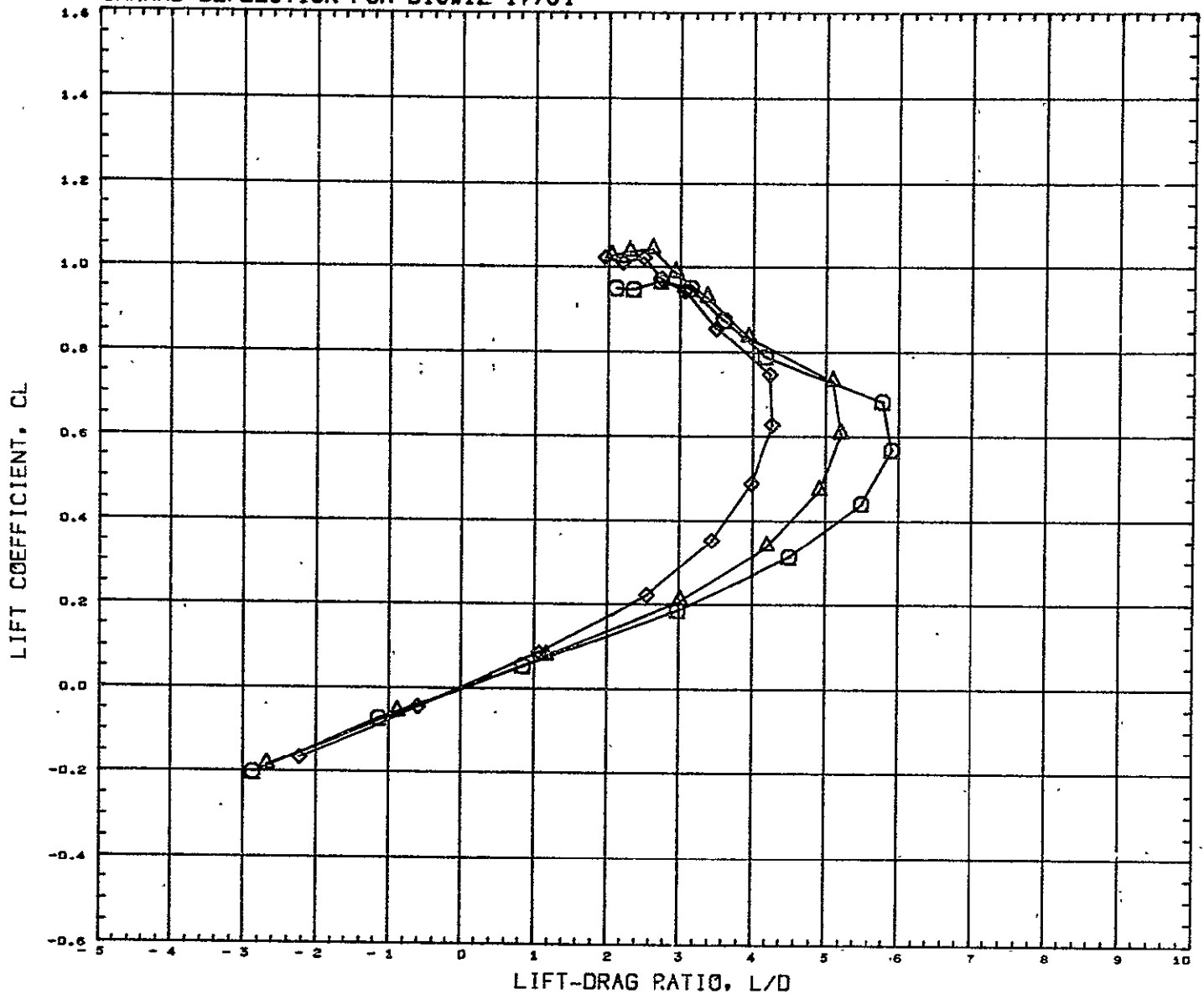
(ICM006)  $\square$  6DLST 587-0 B19W12-1V7C4 (POS. 1)  
 (ICM007)  $\triangle$  6DLST 587-0 B19W12-1V7C4 (POS. 1)  
 (ICM008)  $\diamond$  6DLST 587-0 B19W12-1V7C4 (POS. 1)

CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 60.000  
 1.000 10.000 0.000 60.000  
 1.000 20.000 0.000 60.000

REFERENCE INFORMATION  
 REFS 257.9004 SQ. IN.  
 REFL 9.0560 IN.  
 XMRP 32.1300 IN.  
 YMRP 33.4360 IN.  
 ZMRP 0.0000 IN.  
 SCALE 3.9380 IN.  
 0.0175

BETA 0.000

# CANARD DEFLECTION FOR B19W12-1V7C4



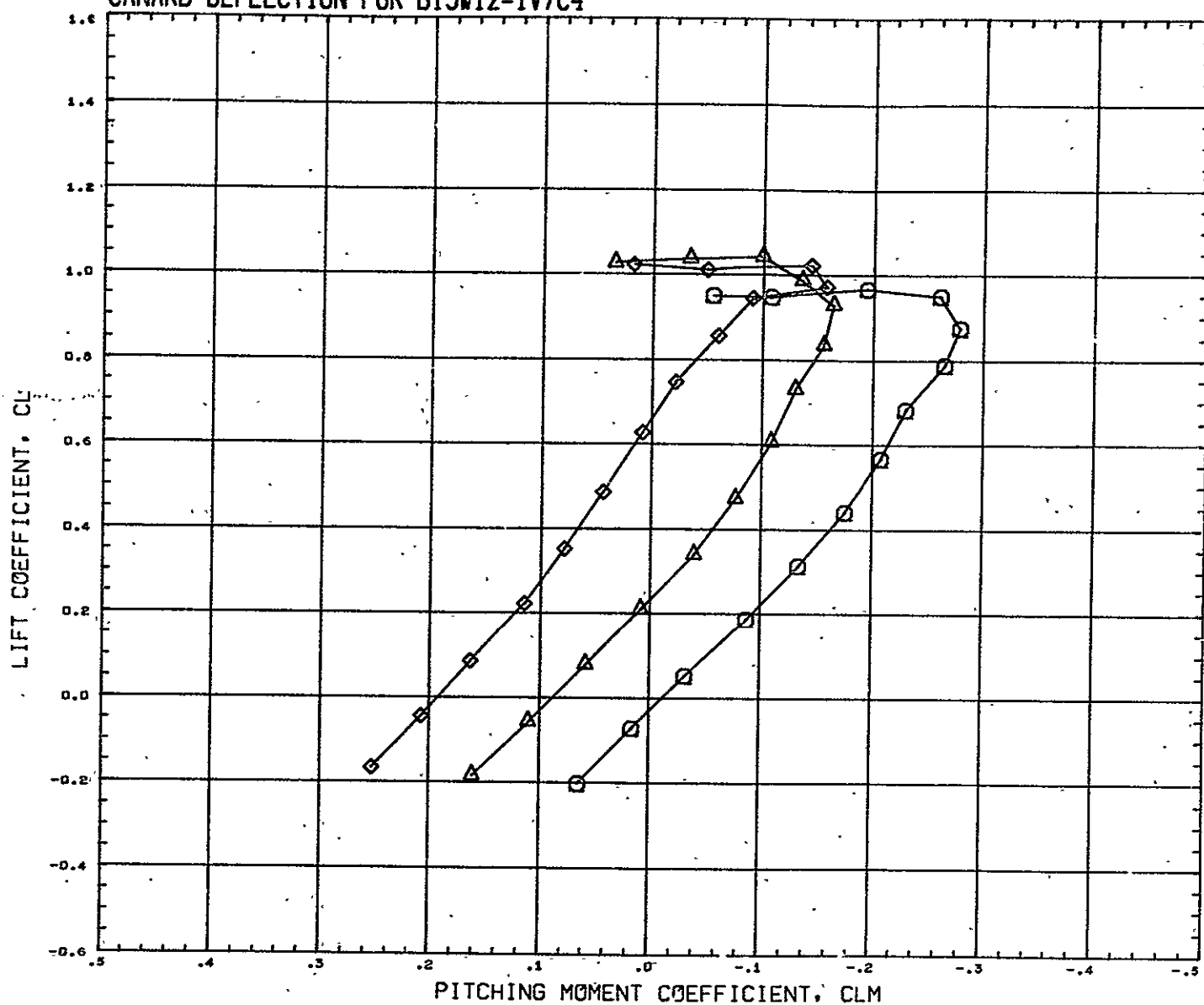
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMD06)	GDLST 587-0 B19W12-1V7C4 (POS. 1)
(ICMD07)	GDLST 587-0 B19W12-1V7C4 (POS. 1)
(ICMD08)	GDLST 587-0 B19W12-1V7C4 (POS. 1)

CANARD	CANVT	CFLAPR	Q
1.000	0.000	0.000	60.000
1.000	10.000	0.000	60.000
1.000	20.000	0.000	60.000

REFERENCE INFORMATION		
REFS	257.9004	Sq. ft
REFL	9.0360	IN.
REFB	32.1300	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

BETA 0.000

# CANARD DEFLECTION FOR B19W12-1V7C4



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICMD06)	GDLST 587-0 B19W12-1V7C4 (POS. 1)
(ICMD07)	GDLST 587-0 B19W12-1V7C4 (POS. 1)
(ICMD08)	GDLST 587-0 B19W12-1V7C4 (POS. 1)

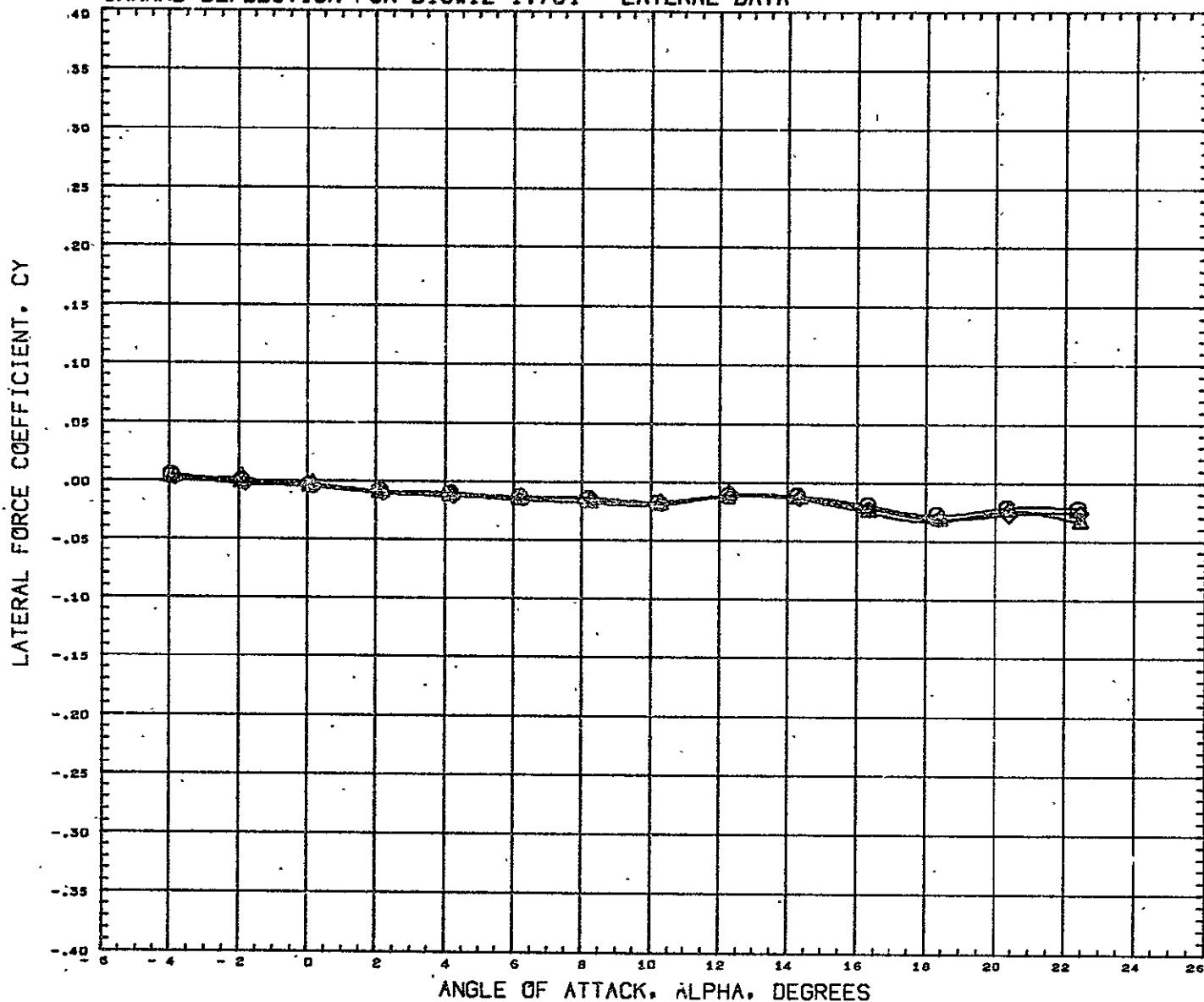
CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	60.000
1.000	10.000	0.000	60.000
1.000	20.000	0.000	60.000

REFERENCE INFORMATION	
REFS	257.9004 SQ. IN.
REFL	9.0560 IN.
REFB	32.1300 IN.
XMRP	33.4360 IN.
YMRP	0.0000 IN.
ZMRP	3.9380 IN.
SCALE	0.0173

BETA 0.000



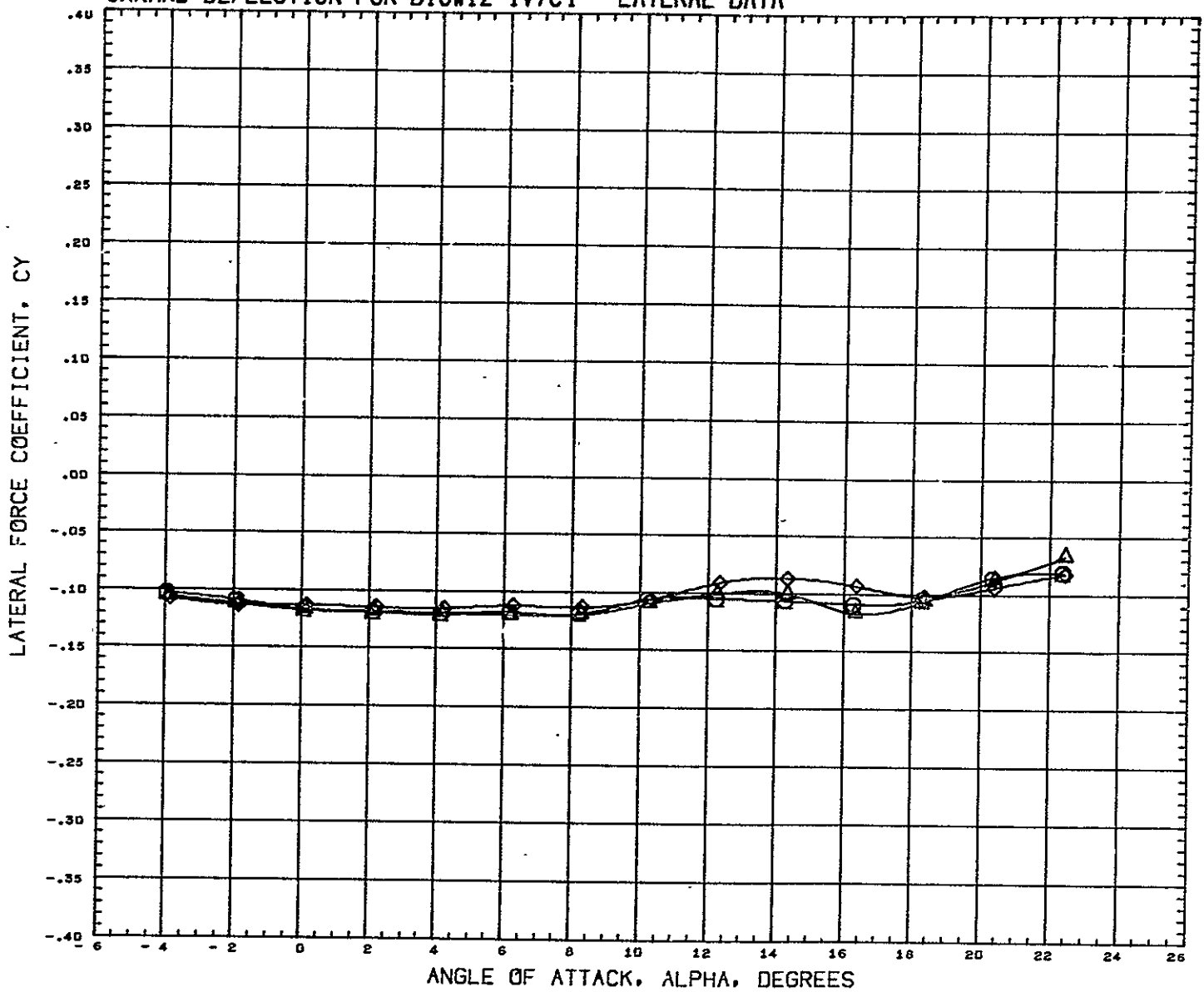
# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ACMD06)	QDLST 587-0 B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	75.000	REFS	257.9004	SG. IN
(ACMD07)	QDLST 587-0 B19W12-1V7C4 (POS. 1)	1.000	10.000	0.000	60.000	REFL	9.0560	IN.
(ACMD08)	QDLST 587-0 B19W12-1V7C4 (POS. 1)	1.000	20.000	0.000	60.000	REFB	32.1300	IN.
						XMRP	33.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9382	IN.
						SCALE	0.0175	

BETA 0.000

# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



DATA SET SYMBOL CONFIGURATION DESCRIPTION

ACMD06) GDLST 587-D B19W12-1V7C4 (POS. 1)  
 ACMD07) GDLST 587-D B19W12-1V7C4 (POS. 1)  
 ACMD08) GDLST 587-D B19W12-1V7C4 (POS. 1)

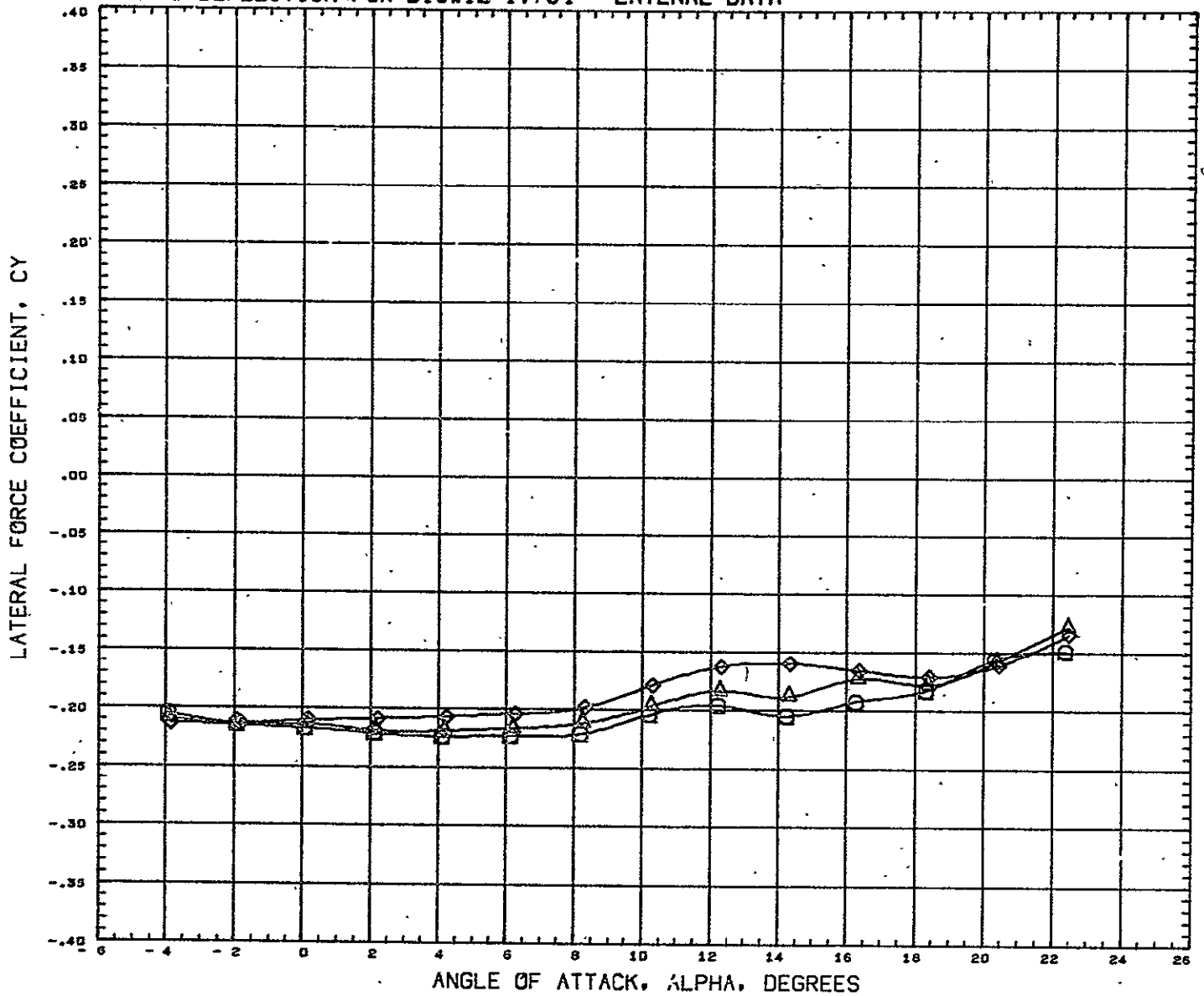
CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 60.000  
 1.000 10.000 0.000 60.000  
 1.000 20.000 0.000 60.000

REFERENCE INFORMATION

REFS 257.9004 SQ. IN.  
 REFL 9.0560 IN.  
 REFB 32.1300 IN.  
 XMRP 33.4360 IN.  
 YMRP 0.0000 IN.  
 ZMRP 3.9384 IN.  
 SCALE 0.0175

BETA 4.000

# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA

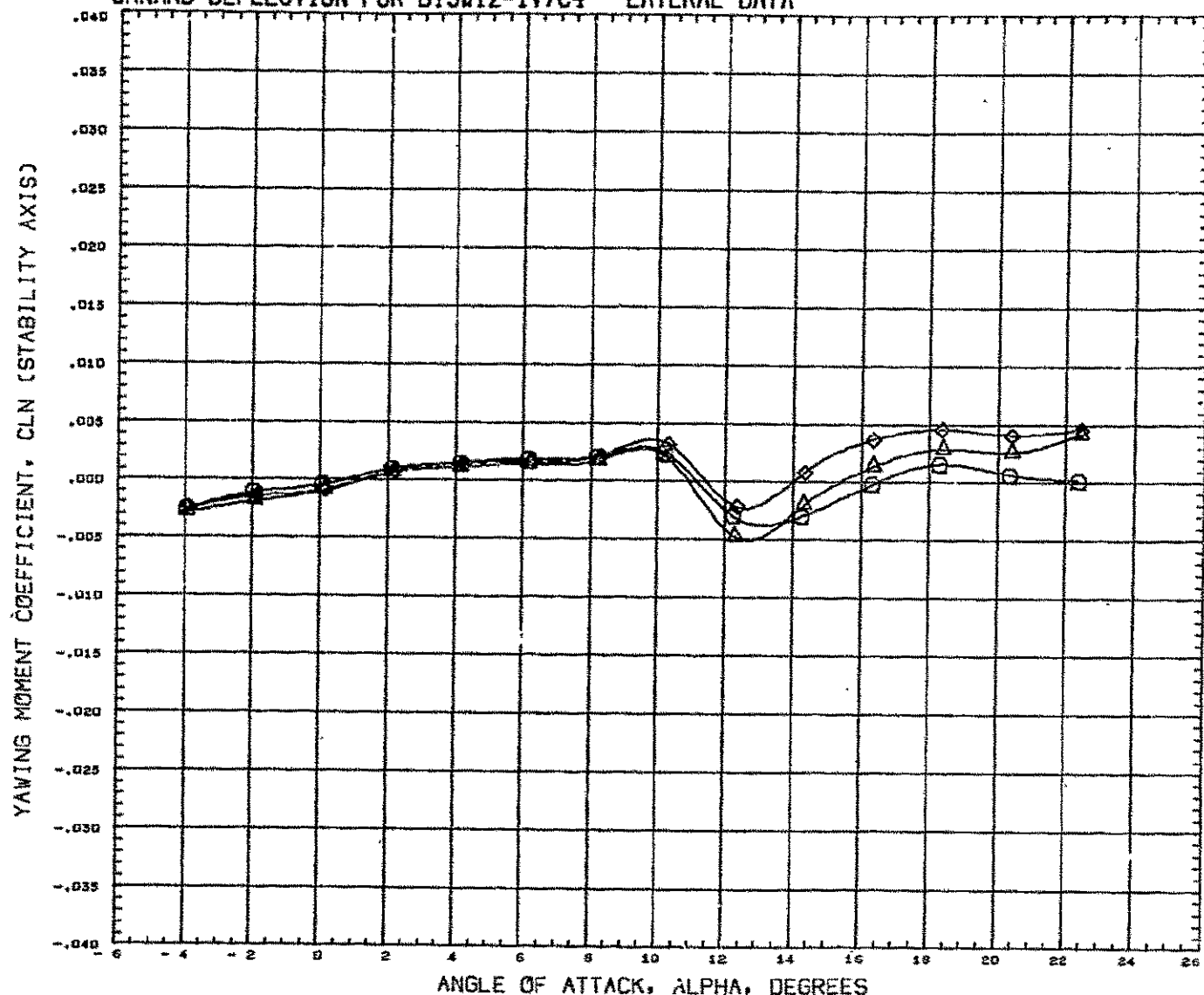


DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ACMD06)  $\square$  GDLST 587-0 B19W12-1V7C4 (POS. 1)  
 (ACMD07)  $\triangle$  GDLST 587-0 B19W12-1V7C4 (POS. 1)  
 (ACMD08)  $\diamond$  GDLST 587-0 B19W12-1V7C4 (POS. 1)

CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
1.000	0.000	0.000	0.000	REFS 257.9004 SQ. IN
1.000	10.000	0.000	60.000	REFL 9.0560 IN.
1.000	20.000	0.000	60.000	REFB 32.1300 IN.
				XMRP 33.4360 IN.
				YMRP 0.0000 IN.
				ZMRP 3.9380 IN.
				SCALE 0.0175

BETA 8.000

# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



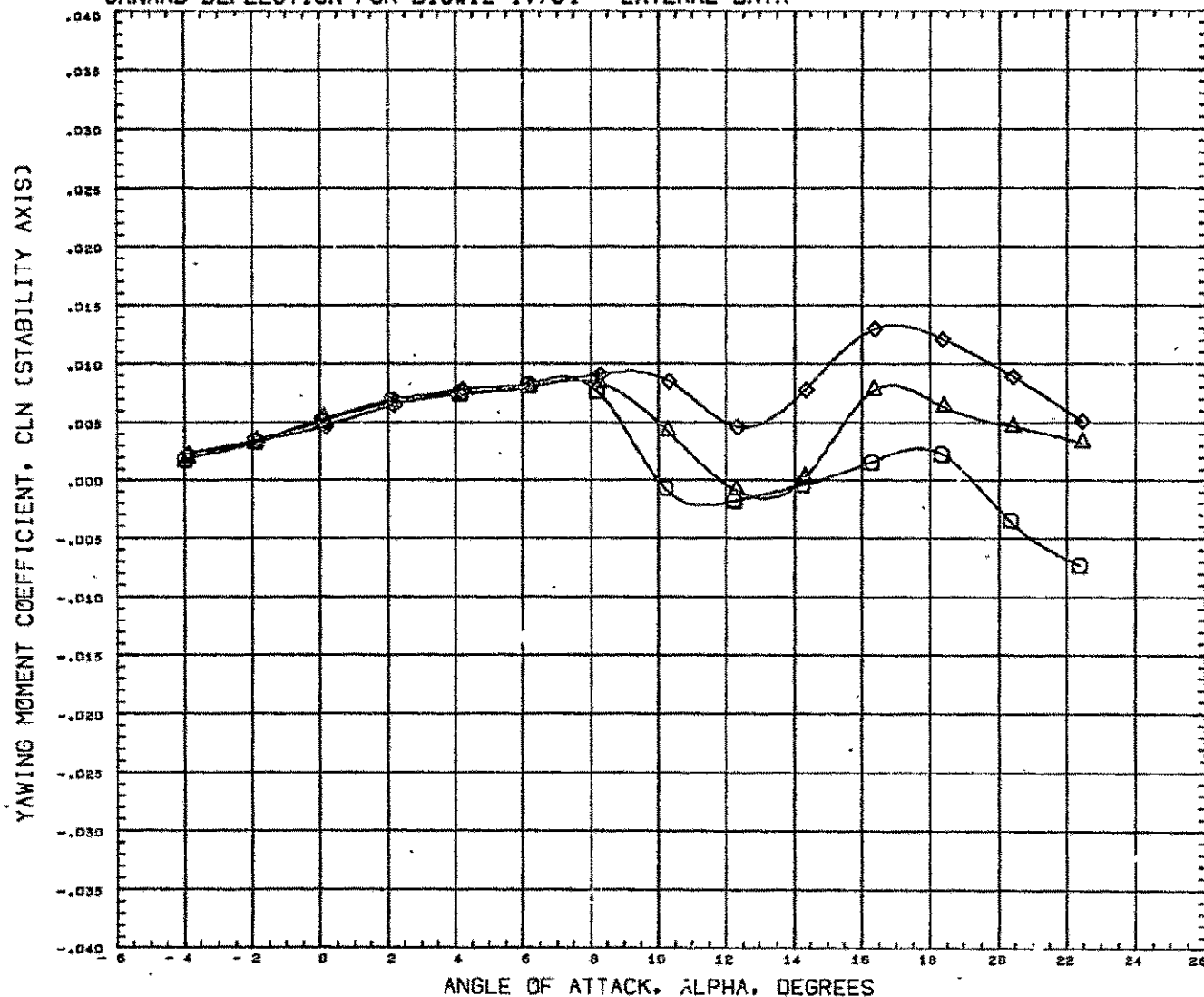
DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ACND06)  $\square$  GDLST 587-D B19W12-1V7C4 (POS. 1)  
 (ACND07)  $\triangle$  GDLST 587-D B19W12-1V7C4 (POS. 1)  
 (ACND08)  $\diamond$  GDLST 587-D B19W12-1V7C4 (POS. 1)

CANARD CANVTR CFLAPR Q  
 1.000 0.000 0.000 40.000  
 1.000 10.000 0.000 60.000  
 1.000 20.000 0.000 80.000

REFERENCE INFORMATION  
 REFS 257.9004 SQ. IN  
 REFL 9.0560 IN.  
 REFB 32.1300 IN.  
 XMRP 33.4360 IN.  
 YMRP 0.0000 IN.  
 ZMRP 3.9380 IN.  
 SCALE 0.0175

BETA 0.000

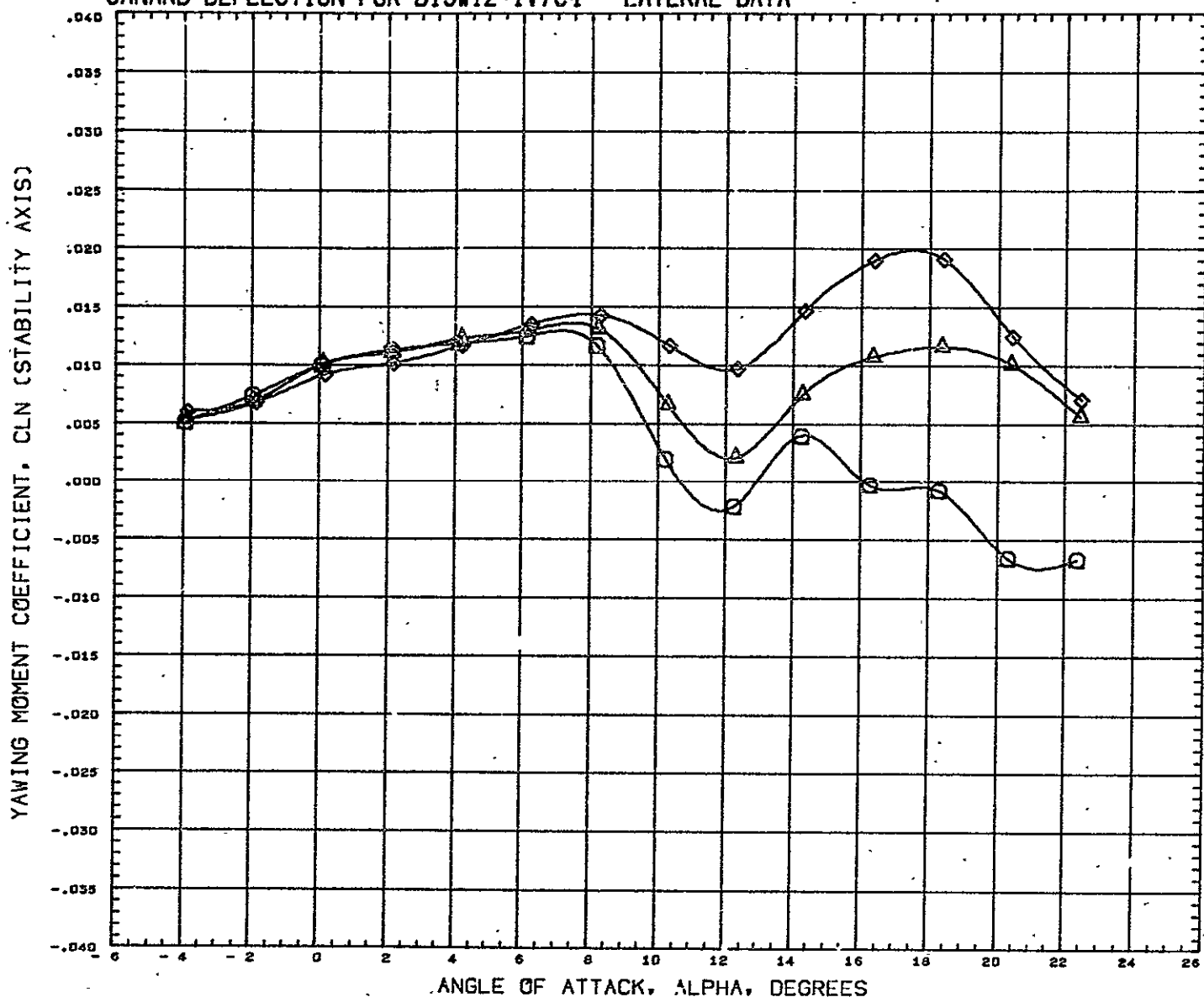
# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION		
(ACHD06)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	10.000	REFS	257.9004	SQ, IN
(ACHD07)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	10.000	0.000	60.000	REFL	9.0560	IN.
(ACHD08)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	20.000	0.000	60.000	REFB	32.1300	IN.
						XMRP	32.4360	IN.
						YMRP	0.0000	IN.
						ZMRP	3.9381	IN.
						SCALE	0.0175	

BETA 4.000

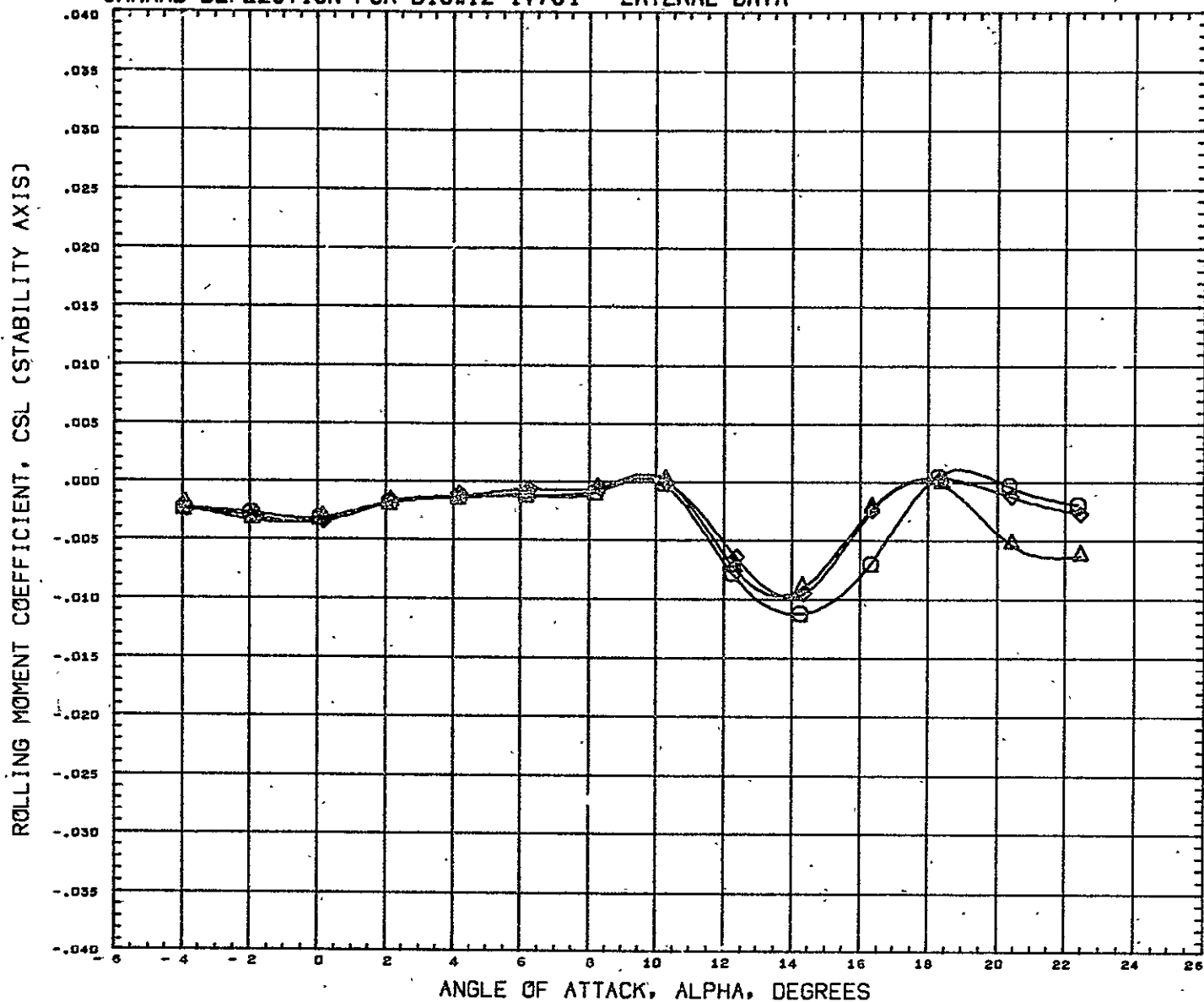
# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	REFERENCE INFORMATION
(ACND06)	GDLST 587-0 B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	REFS 257.9004 SQ. IN.
(ACND07)	GDLST 587-0 B19W12-1V7C4 (POS. 1)	1.000	10.000	0.000	60.000	REFL 9.0560 IN.
(ACND08)	GDLST 587-0 B19W12-1V7C4 (POS. 1)	1.000	20.000	0.000	60.000	REFB 32.1300 IN.
						XHRP 33.4360 IN.
						YHRP 0.0000 IN.
						ZHRP 3.9380 IN.
						SCALE 0.0113

BETA 8.000

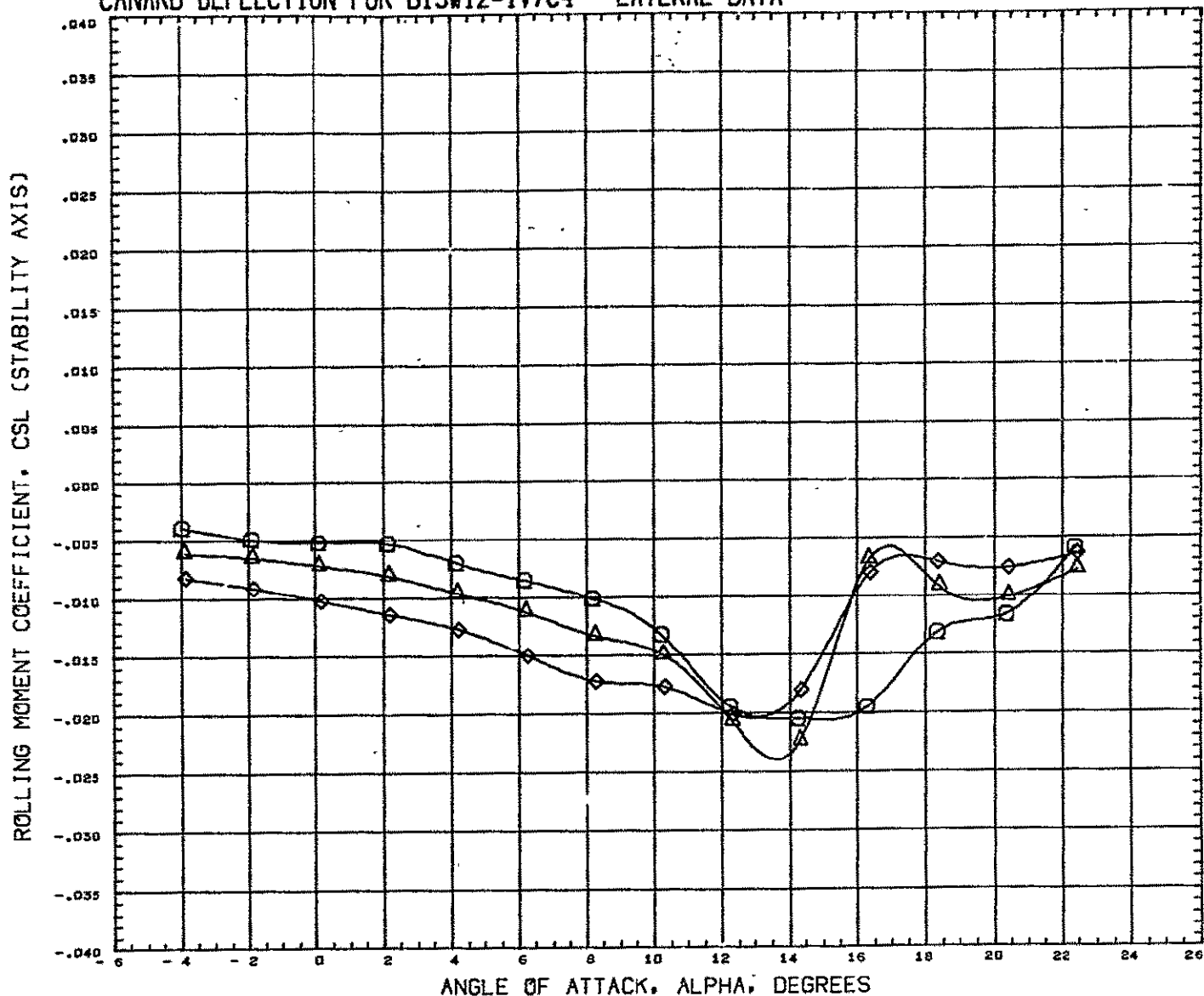
# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
(ACMD06)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	95.300	REFS 257.9004 SQ. IN.
(ACMD07)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	10.000	0.000	60.000	REFL 9.0560 IN.
(ACMD08)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	20.000	0.000	60.000	REFB 32.1300 IN.
						XNRP 33.4360 IN.
						YNRP 0.0000 IN.
						ZNRP 3.9380 IN.
						SCALE 0.0175

BETA 0.000

# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ACMD06)	GDLST 58T-D B19W12-1V7C4 (POS. 1)
(ACMD07)	GDLST 58T-D B19W12-1V7C4 (POS. 1)
(ACMD08)	GDLST 58T-D B19W12-1V7C4 (POS. 1)

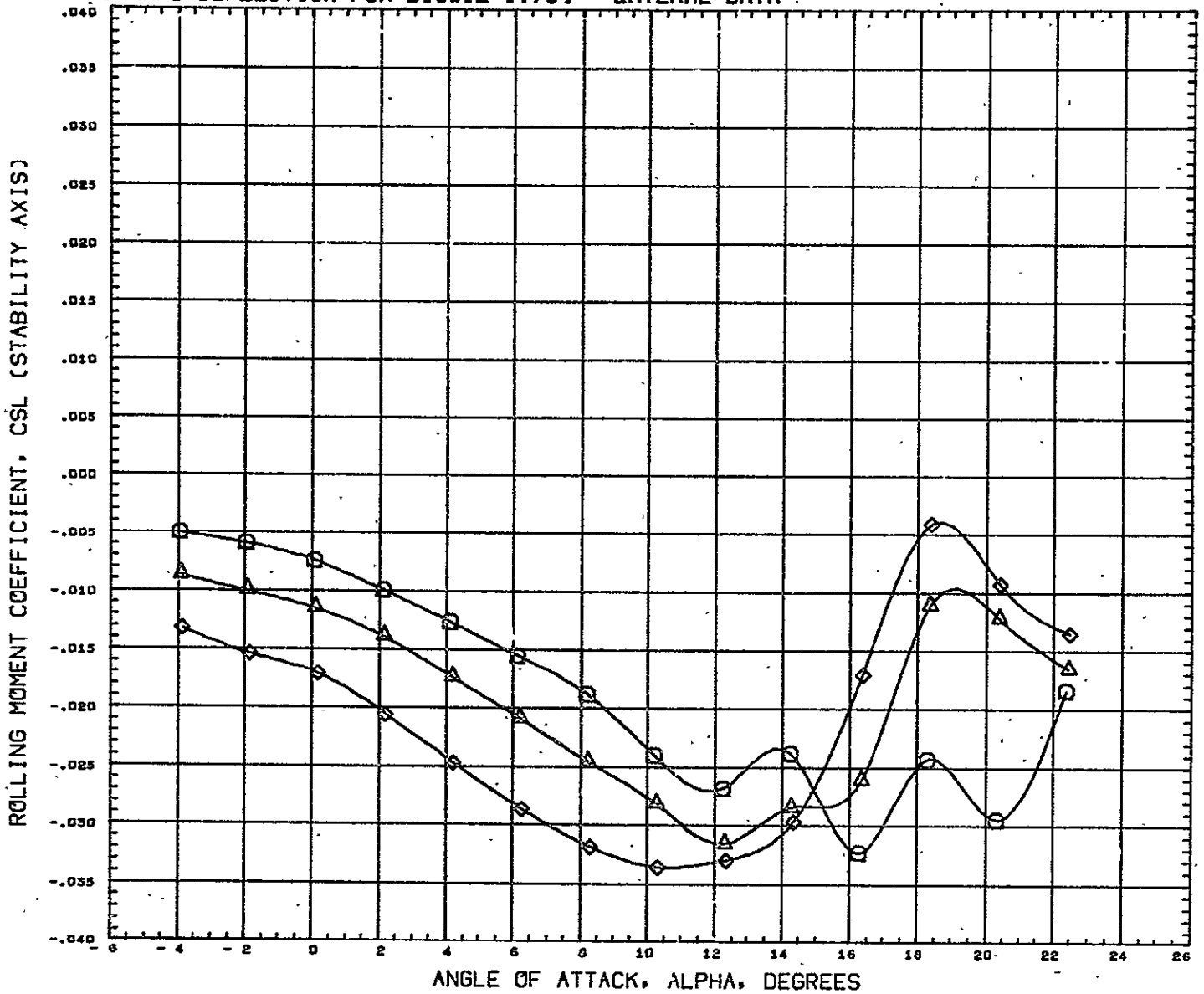
CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	60.000
1.000	10.000	0.000	60.000
1.000	20.000	0.000	60.000

REFERENCE INFORMATION		
REFS	257.9004	SQ. IN.
REFL	9.0560	IN.
REFB	32.1300	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

BETA 4.000



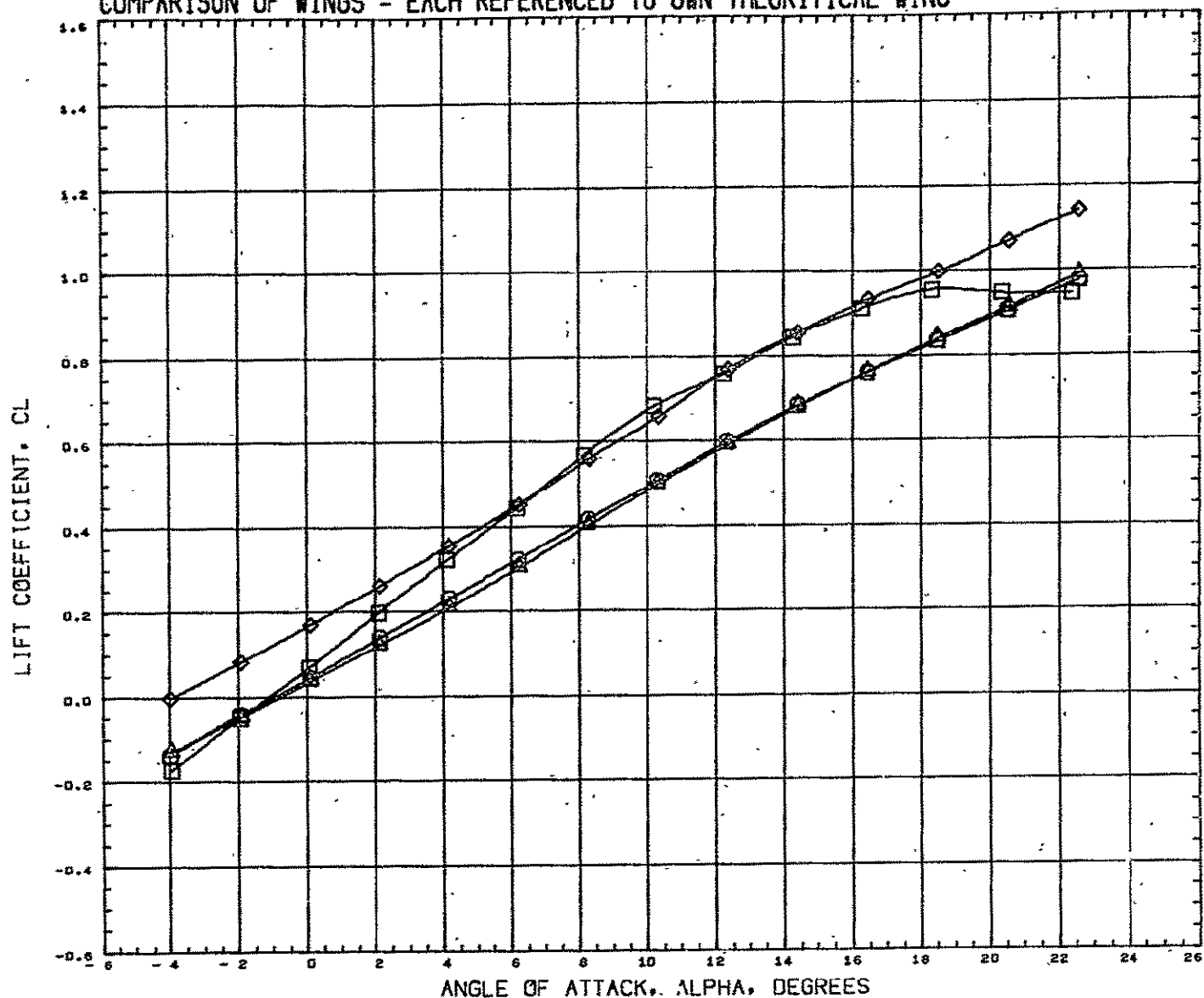
# CANARD DEFLECTION FOR B19W12-1V7C4 LATERAL DATA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	REFERENCE INFORMATION
(ACMD06)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	40.700	REFS 257.9004 sq. in
(ACMD07)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	10.000	0.000	60.000	REFL 9.0560 in.
(ACMD08)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	20.000	0.000	60.000	REFB 32.1300 in.
						XMRP 33.4360 in.
						YMRP 0.0000 in.
						ZMRP 3.9381 in.
						SCALE 0.0175

BETA 8.000

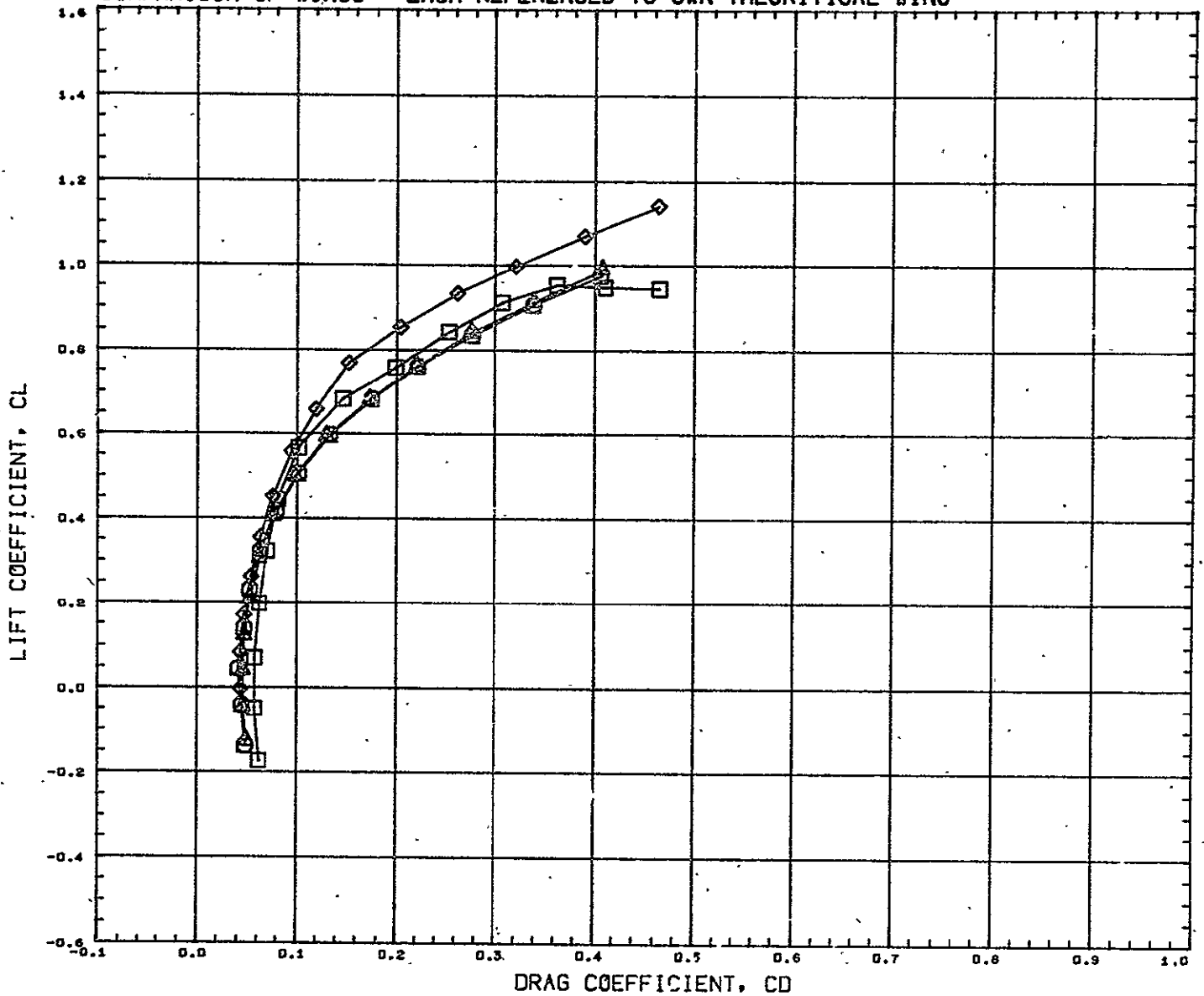
# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORITICAL WING



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	
(BCHA10)	GDLST 587-0 B19W10-1V7C4	1.000	0.000	0.000	60.000	SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS
(SCHB01)	GDLST 587-0 B19W13V7C4	1.000	0.000	0.000	60.000	
(1CHCD2)	GDLST 587-0 B19W11V7C4 (POS. 1)	1.000	0.000	0.000	60.000	
(1CHDD2)	GDLST 587-0 B19W12V7C4 (POS. 1)	1.000	0.000	0.000	60.000	

BETA 0.000

# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORITICAL WING



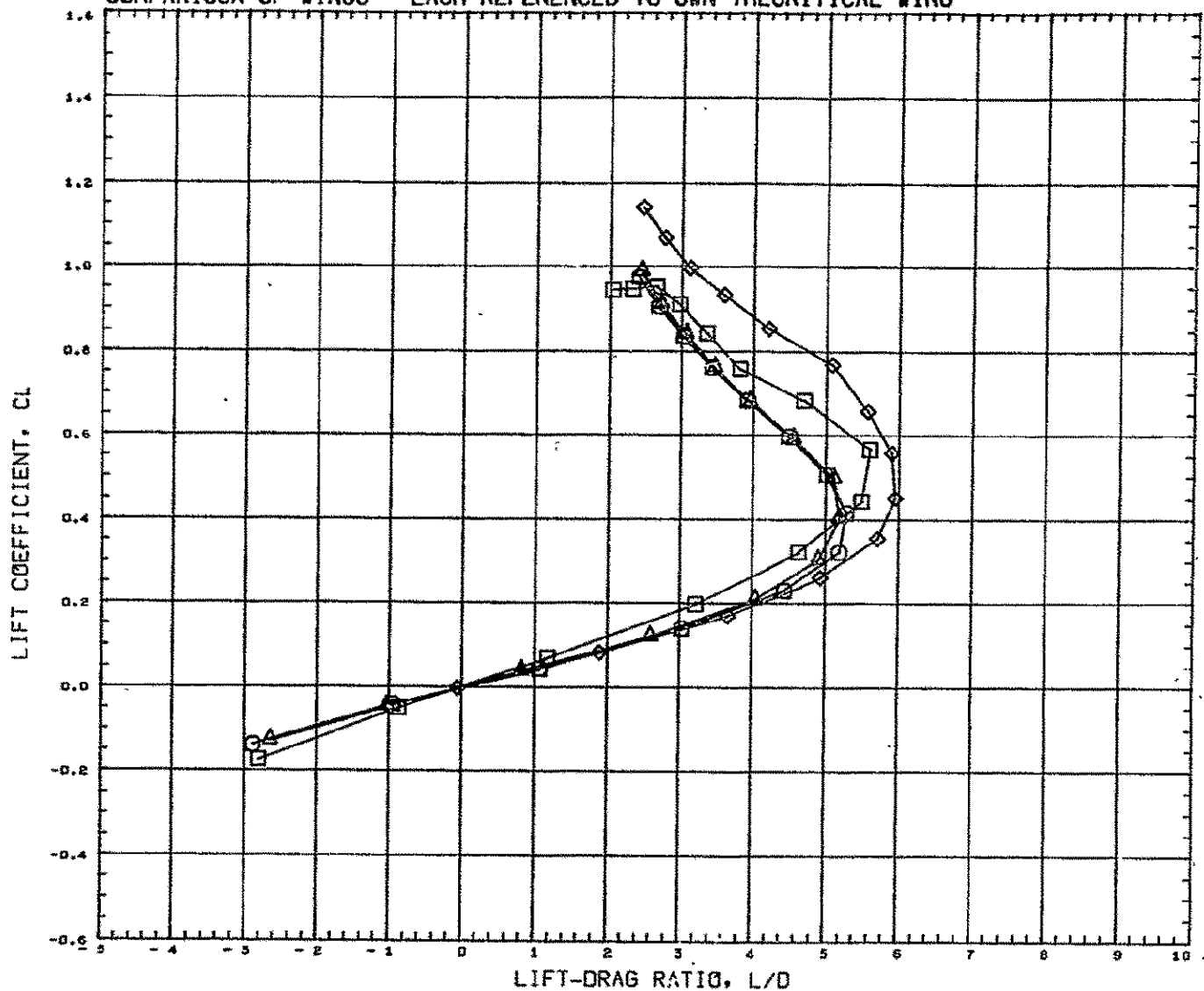
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10)	GDLST 587-0 B19W10-1V7C4
(SCMB01)	GDLST 587-0 B19W13V7C4
(ICMC02)	GDLST 587-0 B19W11V7C4 (POS. 1)
(ICM002)	GDLST 587-0 B19W12V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	60,000
1.000	0.000	0.000	60,400
1.000	0.000	0.000	60,000
1.000	0.000	0.000	60,000

SEE THE ASSOCIATED DATA  
DOCUMENT FOR REFERENCE  
CHARACTERISTICS

BETA 0.000

# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORETICAL WING

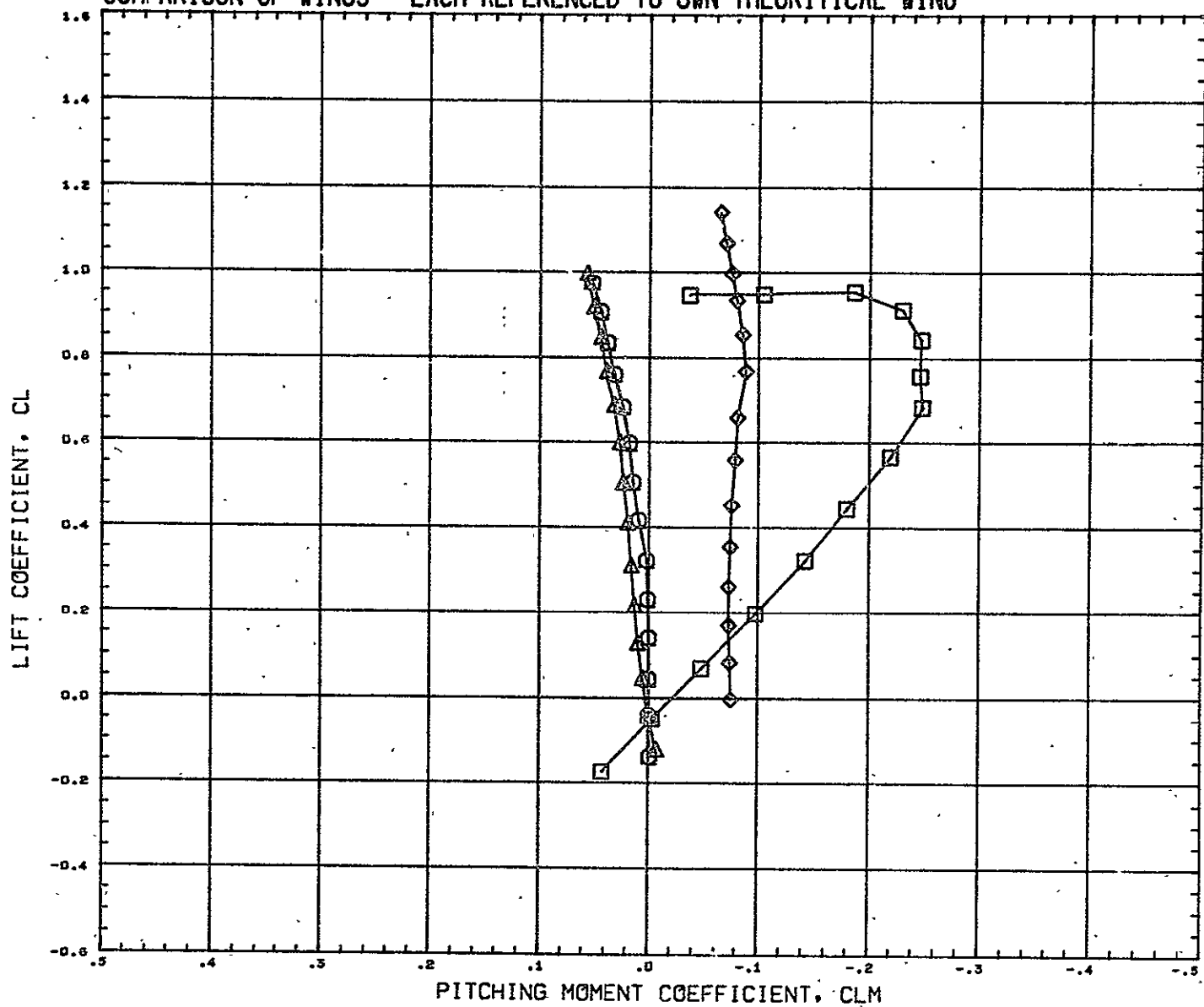


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(BCMA10)	GDLST 587-D B19W10-1V7C4
(SCMB01)	GDLST 587-D B19W13V7C4
(ICMCD2)	GDLST 587-D B19W11V7C4 (POS. 1)
(ICM002)	GDLST 587-D B19W12V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q	
1.000	0.000	0.000	40.000	SEE THE ASSOCIATED DATA
1.000	0.000	0.000	50.000	DOCUMENT FOR REFERENCE
1.000	0.000	0.000	60.000	CHARACTERISTICS
1.000	0.000	0.000	80.000	

BETA 0.000

# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORETICAL WING



DATA SET SYMBOL CONFIGURATION DESCRIPTION

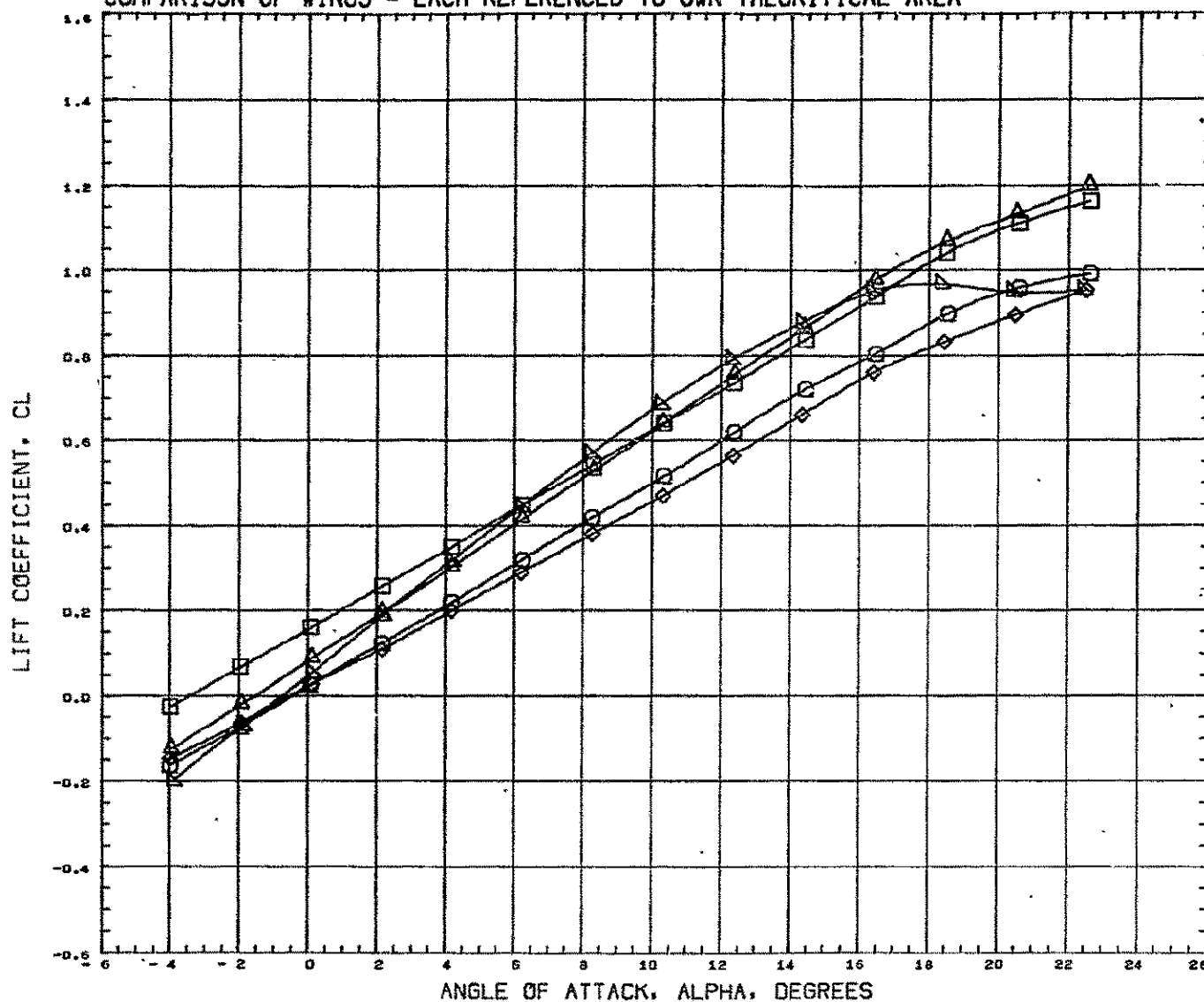
(BCMA10) GDLST 587-0 B19W10-1V7C4  
 (SCNB01) GDLST 587-0 B19W13V7C4  
 (ICMC02) GDLST 587-0 B19W11V7C4 (POS. 1)  
 (ICMD02) GDLST 587-0 B19W12V7C4 (POS. 1)

CANARD	CANVTR	CFLAPR	Q
1.000	0.000	0.000	60.000
1.000	0.000	0.000	3.400
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000

SEE THE ASSOCIATED DATA  
 DOCUMENT FOR REFERENCE  
 CHARACTERISTICS

BETA 0.000

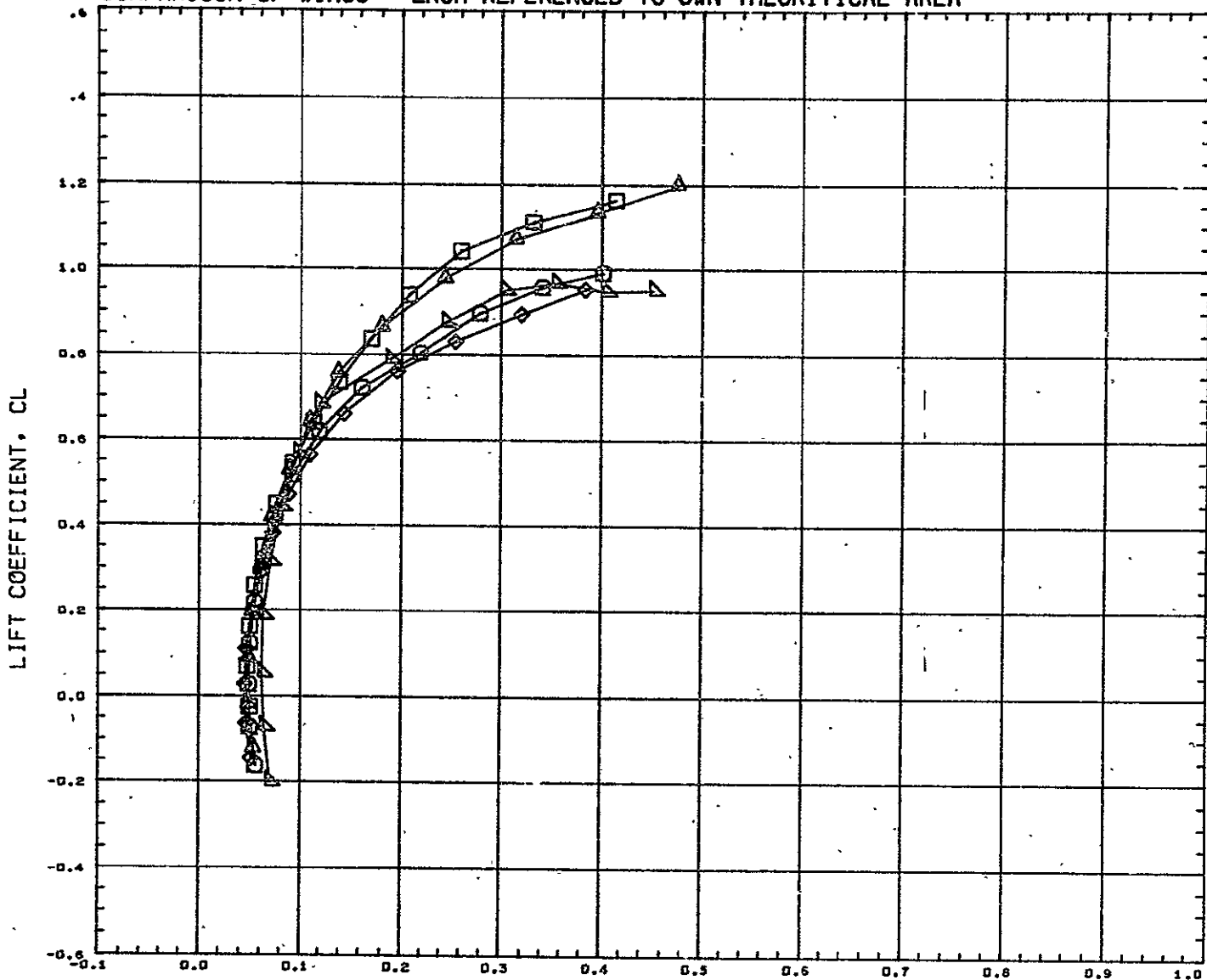
# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORETICAL AREA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVTR	CFLAPR	Q	
(ICMA76)	GDLST 587-D B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	60.000	SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS
(ACMA92)	GDLST 587-D B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	
(OCHB04)	GDLST 587-D B19W13-1V7C7 (POS. 1)	1.000	0.000	0.000	60.400	
(ICMC03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	
(ICMC06)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	

BETA 0.000

# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORITICAL AREA



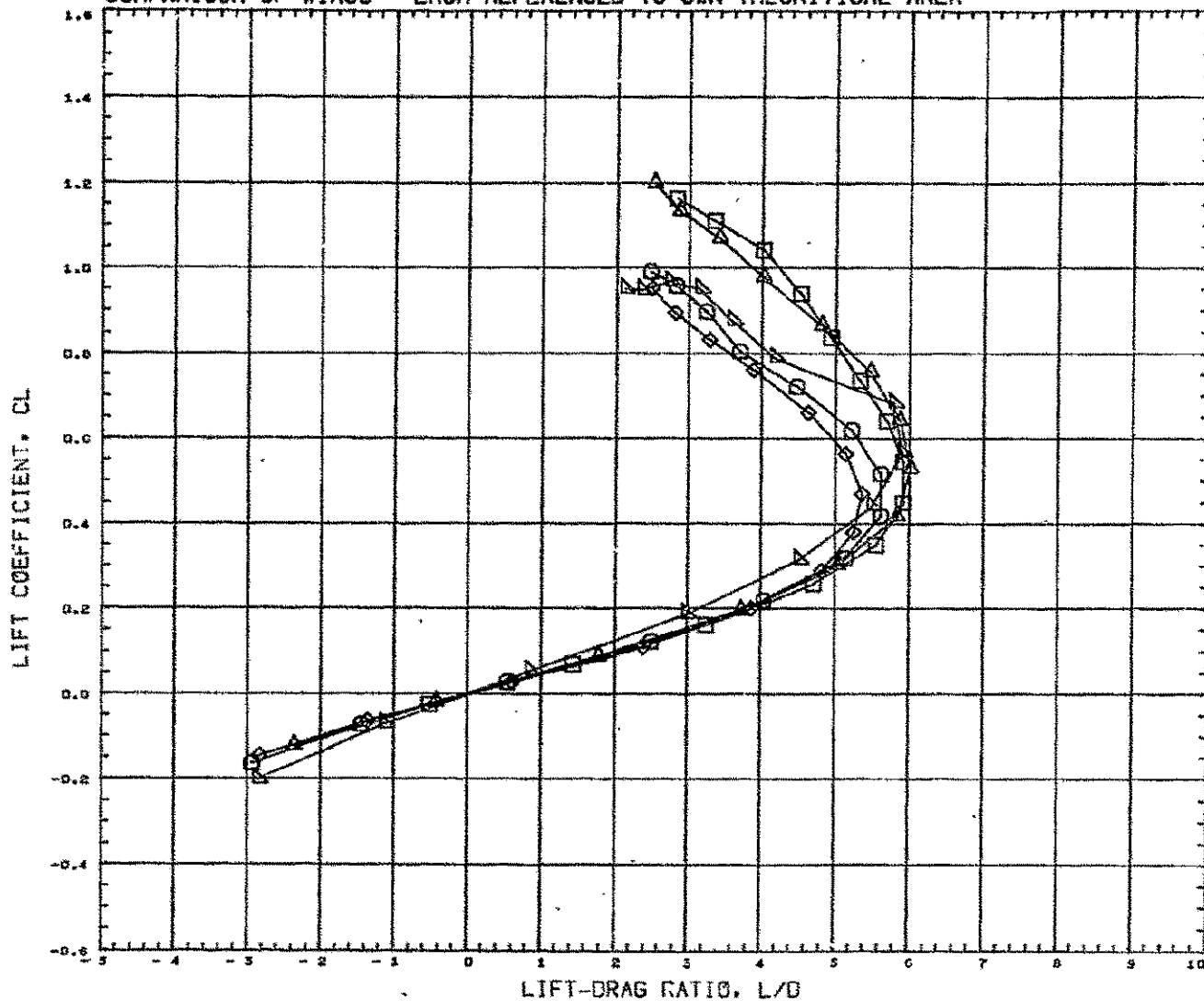
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ICHA76)	GDLST 587-0 B19W10-8V7C4 (POS. 1)
(ACNA92)	GDLST 587-0 B19W10-13V7C4 (POS. 1)
(OCHB04)	GDLST 587-0 B19W13-1V7C7 (POS. 1)
(ICHC03)	GDLST 587-0 B19W11-1V7C4 (POS. 1)
(ICND06)	GDLST 587-0 B19W12-1V7C4 (POS. 1)

CANARD	CANVT	CFLAPR	Q
1.000	0.000	0.000	50.000
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.400
1.000	0.000	0.000	60.000
1.000	0.000	0.000	60.000

SEE THE ASSOCIATED DATA  
DOCUMENT FOR REFERENCE  
CHARACTERISTICS

BETA 0.000

# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORITICAL AREA

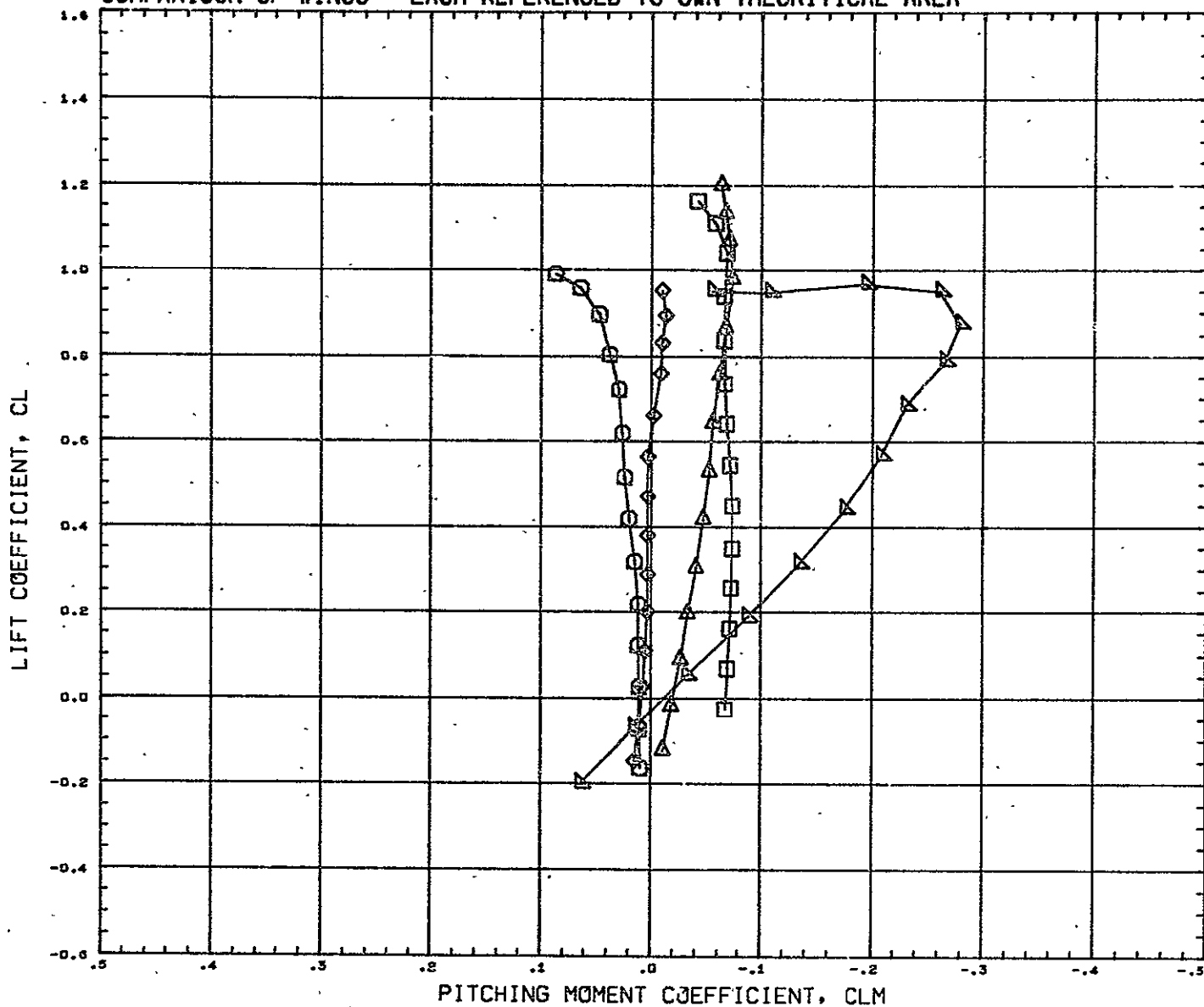


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVER	CFLAPR	Q	
(ICHA76)	GDLST 587-D B19W10-0V7C4 (POS. 1)	1.000	0.000	0.000	60.000	SEE THE ASSOCIATED DATA
(ACHA92)	GDLST 587-D B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	DOCUMENT FOR REFERENCE
(ICNB04)	GDLST 587-D B19W13-1V7C7 (POS. 1)	1.000	0.000	0.000	60.000	CHARACTERISTICS
(ICND03)	GDLST 587-D B19W11-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	
(ICND06)	GDLST 587-D B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	

BETA 0.000

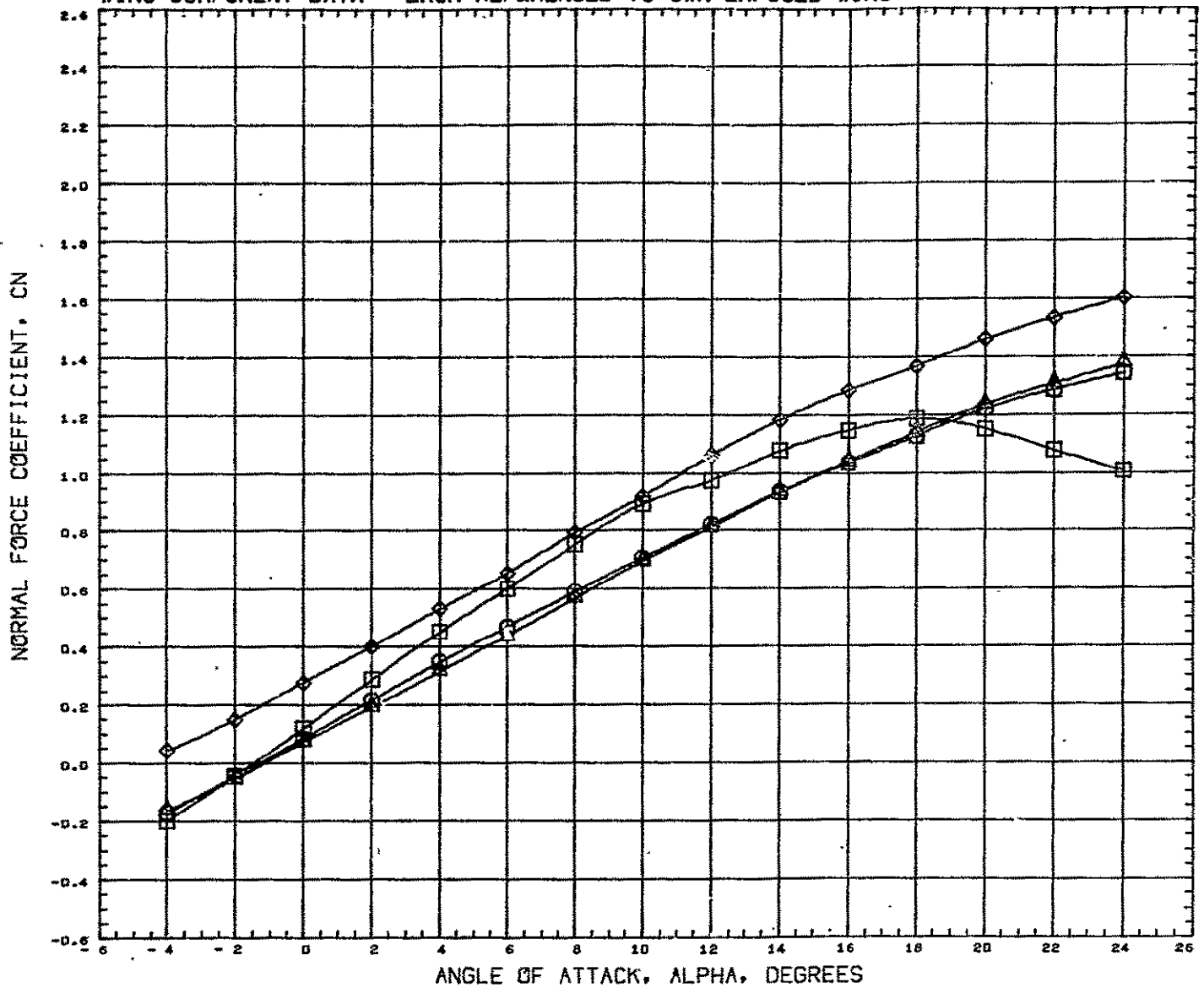


# COMPARISON OF WINGS - EACH REFERENCED TO OWN THEORITICAL AREA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CANARD	CANVT	CFLAPR	Q	
(ICHA76)	GDLST 587-0 B19W10-8V7C4 (POS. 1)	1.000	0.000	0.000	20.100	SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS
(ACMA92)	GDLST 587-0 B19W10-13V7C4 (POS. 1)	1.000	0.000	0.000	60.000	
(OCNB04)	GDLST 587-0 B19W13-1V7C7 (POS. 1)	1.000	0.000	0.000	60.400	
(ICNC03)	GDLST 587-0 B19W11-1V7C6 (POS. 1)	1.000	0.000	0.000	60.000	
(ICND06)	GDLST 587-0 B19W12-1V7C4 (POS. 1)	1.000	0.000	0.000	60.000	
BETA	0.000					

# WING COMPONENT DATA - EACH REFERENCED TO OWN EXPOSED WING

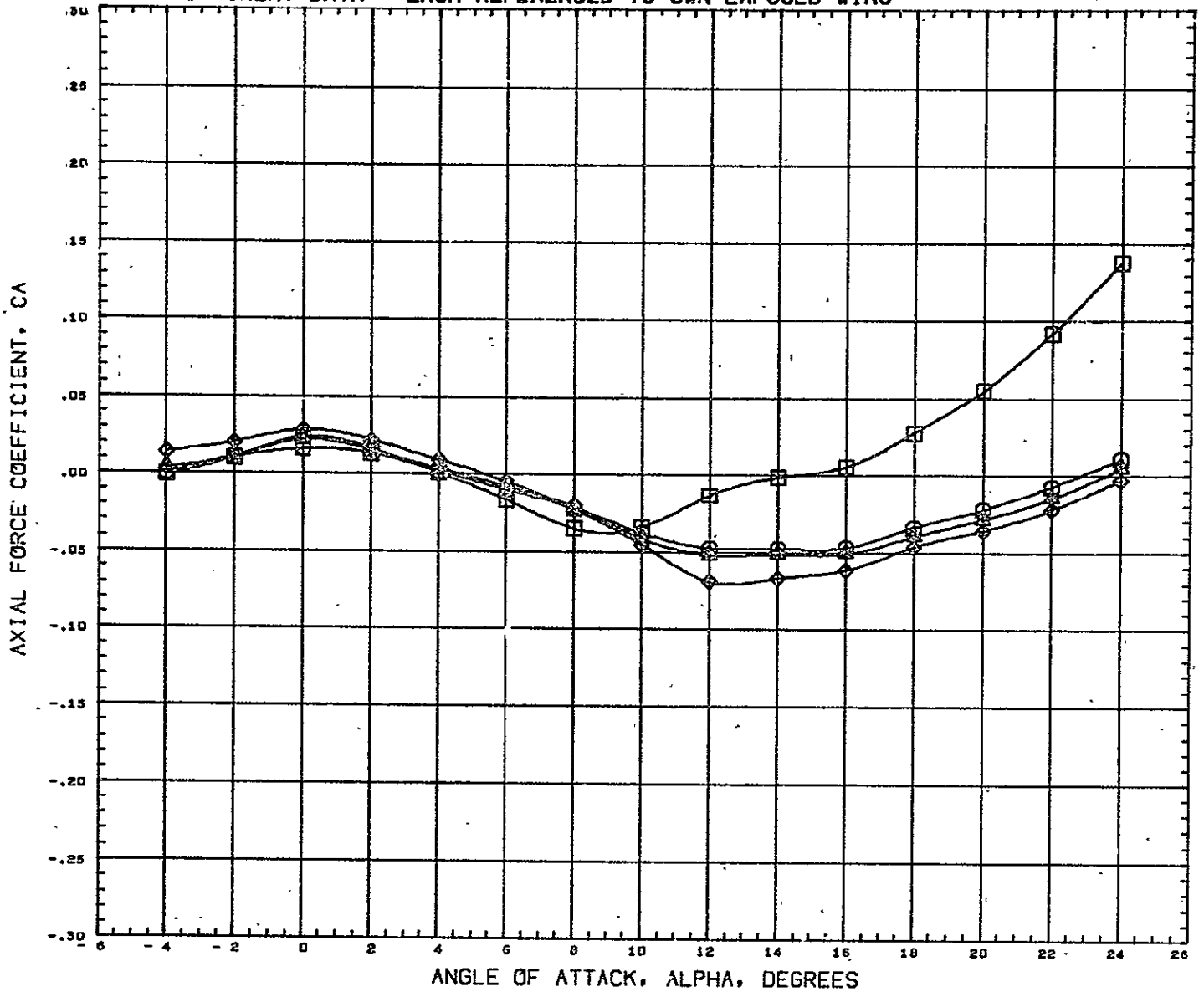


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ZCMA50)	GDLST 587-D W10 (B19)
(ZCMB01)	GDLST 587-D W13 (B19V7C4)
(ZCMC02)	GDLST 587-D W11 (B19V7C4)
(ZCMD02)	GDLST 587-D W12 (B19V7C4)

SEE THE ASSOCIATED DATA  
DOCUMENT FOR REFERENCE  
CHARACTERISTICS

BETA 0.000

# WING COMPONENT DATA - EACH REFERENCED TO OWN EXPOSED WING



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(ZCHA50)	○	GDLST 587-D W10 (B19)
(ZCHBD1)	△	GDLST 587-D W13 (B19V7C4)
(ZCHCD2)	◇	GDLST 587-D W11 (B19V7C4)
(ZCHDD2)	□	GDLST 587-D W12 (B19V7C4)

SEE THE ASSOCIATED DATA  
DOCUMENT FOR REFERENCE  
CHARACTERISTICS

BETA 0.000

# WING COMPONENT DATA - EACH REFERENCED TO OWN EXPOSED WING

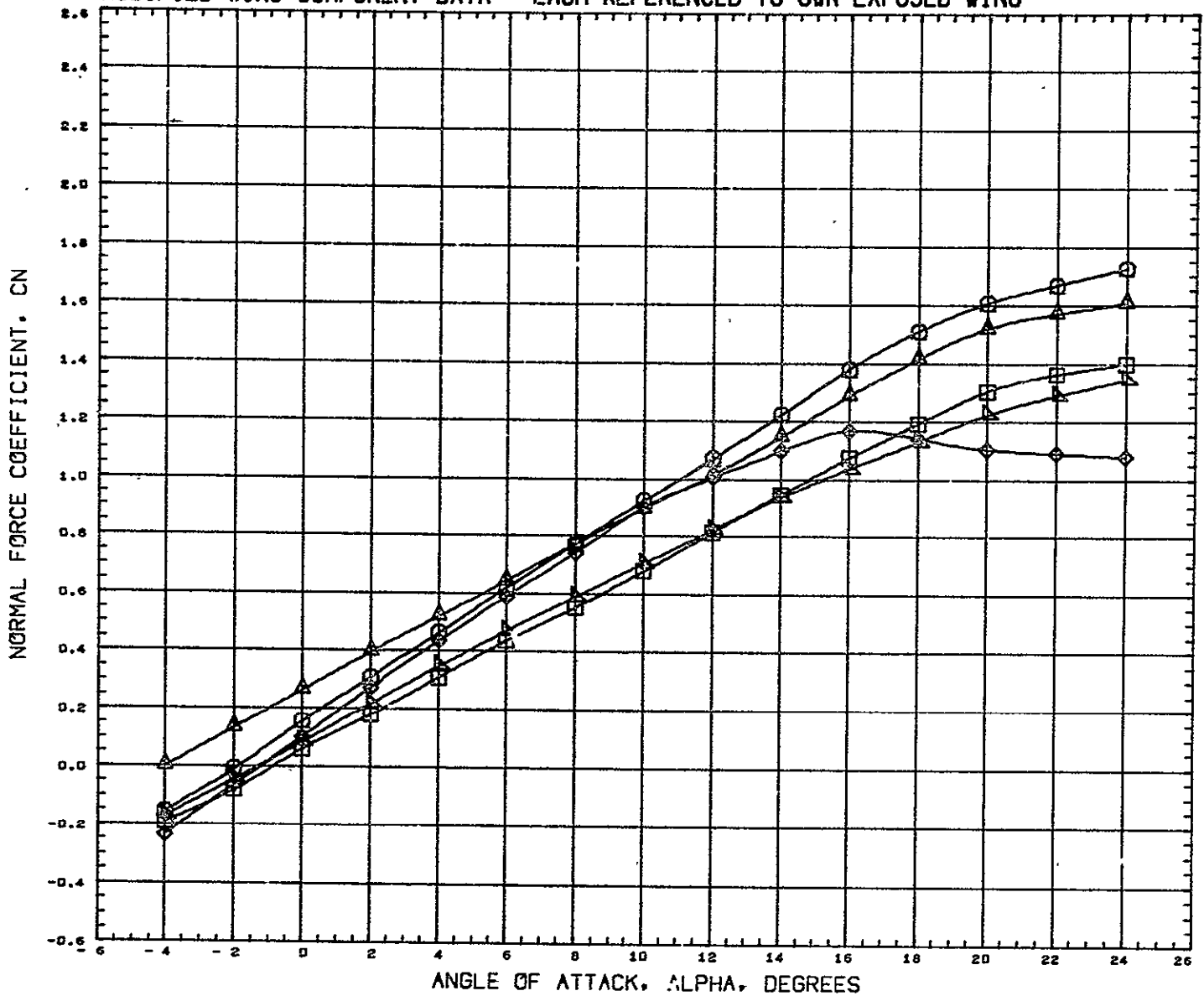


DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (ZCHA50)       GDLST 587-0    W10 (B19)  
 (ZCHB01)       GDLST 587-0    W13 (B19V7C4)  
 (ZCHC02)       GDLST 587-0    W11 (B19V7C4)  
 (ZCHD02)       GDLST 587-0    W12 (B19V7C4)

SEE THE ASSOCIATED DATA  
 DOCUMENT FOR REFERENCE  
 CHARACTERISTICS

BETA    0.000

# MODIFIED WING COMPONENT DATA - EACH REFERENCED TO OWN EXPOSED WING

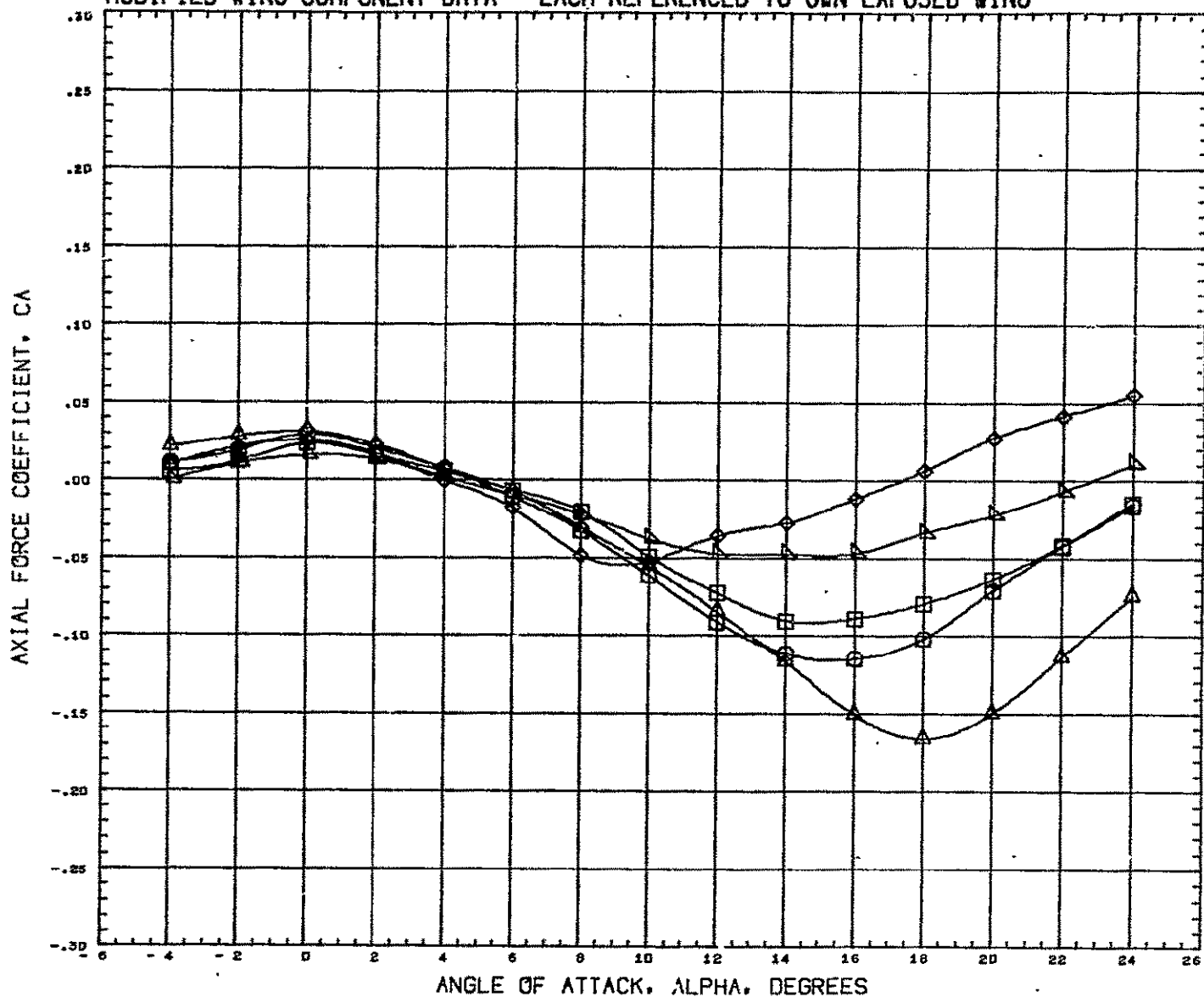


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ZCHA92)	GDLST 587-D W13-13 (B19V7C4 POS.1)
(ZCNC06)	GDLST 587-D W11-1 (B19)
(ZCND10)	GDLST 587-D W12-1 (B15)
(ZCHRD4)	GDLST 587-D W13-1 (B19V7C4 POS.2)
(ZCMA50)	GDLST 587-D W10 (B19)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS

BETA 0.000

# MODIFIED WING COMPONENT DATA - EACH REFERENCED TO OWN EXPOSED WING

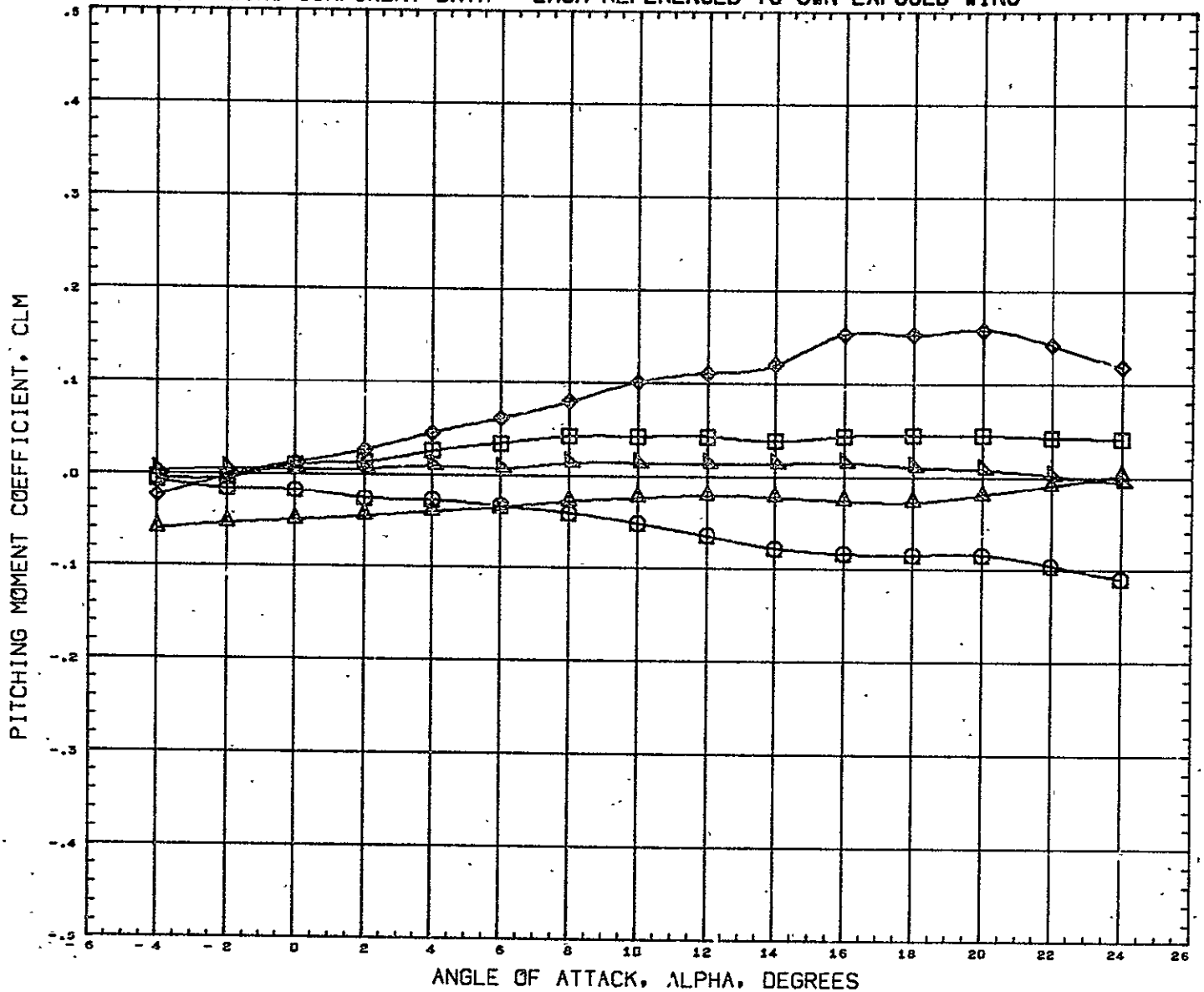


DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZCHA92) GDLST 587-D WID-13 (B19V7C4 FOS.1)  
 (ZCHC06) GDLST 587-D W11-1 (B19)  
 (ZCHD10) GDLST 587-D W12-1 (B19)  
 (ZCHBD4) GDLST 587-D W13-1 (B19V7C4 FOS.8)  
 (ZCHA50) GDLST 587-G WID (B19)

SEE THE ASSOCIATED DATA  
 DOCUMENT FOR REFERENCE  
 CHARACTERISTICS

BETA 0.000

# MODIFIED WING COMPONENT DATA - EACH REFERENCED TO OWN EXPOSED WING

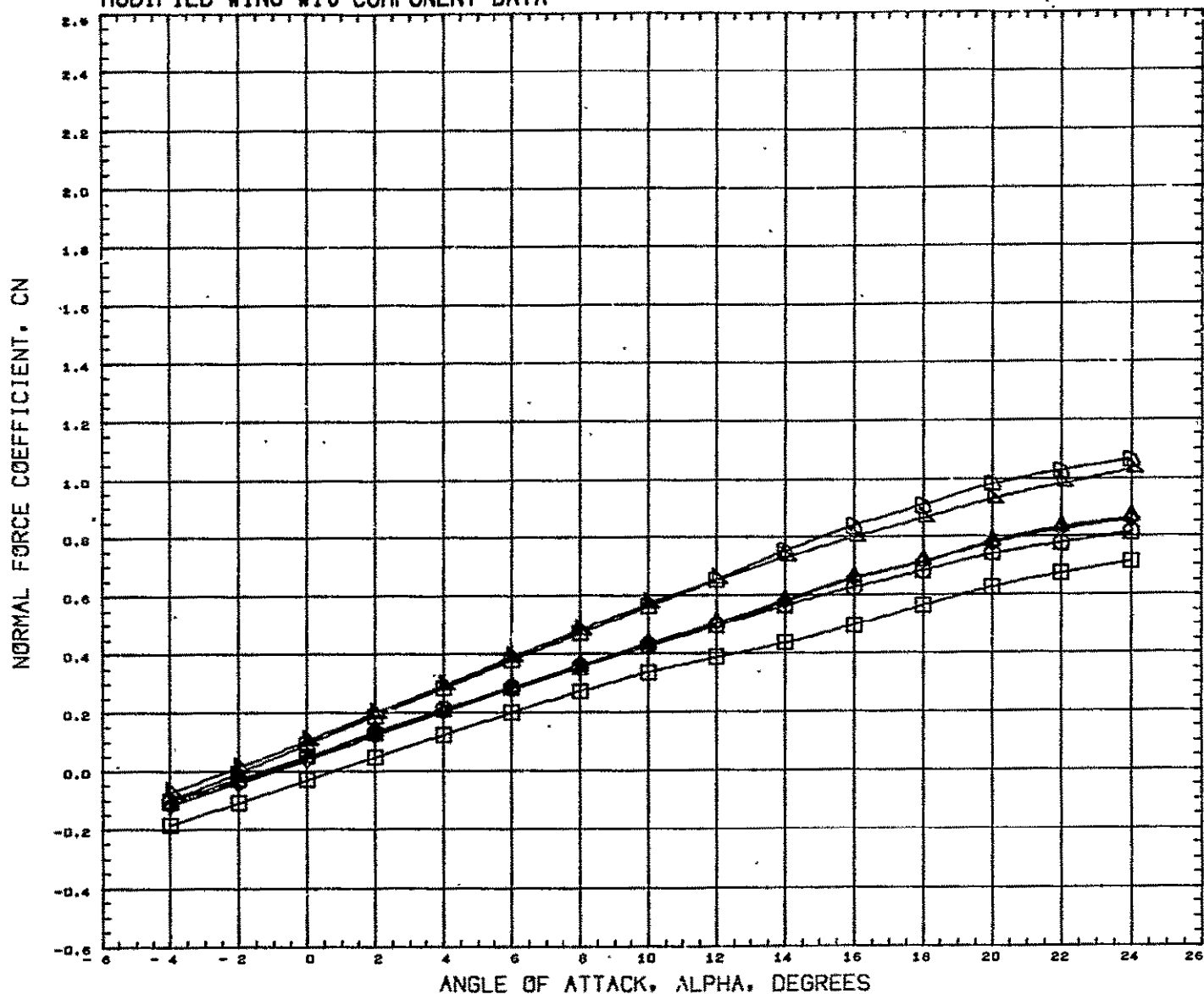


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ZCNA92)	GDLST 587-0 W10-13 (B19V7C4 POS.1)
(ZCMC06)	GDLST 587-0 W11-1 (B19)
(ZCHD10)	GDLST 587-0 W12-1 (B19)
(ZCHB04)	GDLST 587-0 W13-1 (B19V7C4 POS.8)
(ZCNA50)	GDLST 587-0 W10 (B19)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS

BETA 0.000

# MODIFIED WING W10 COMPONENT DATA



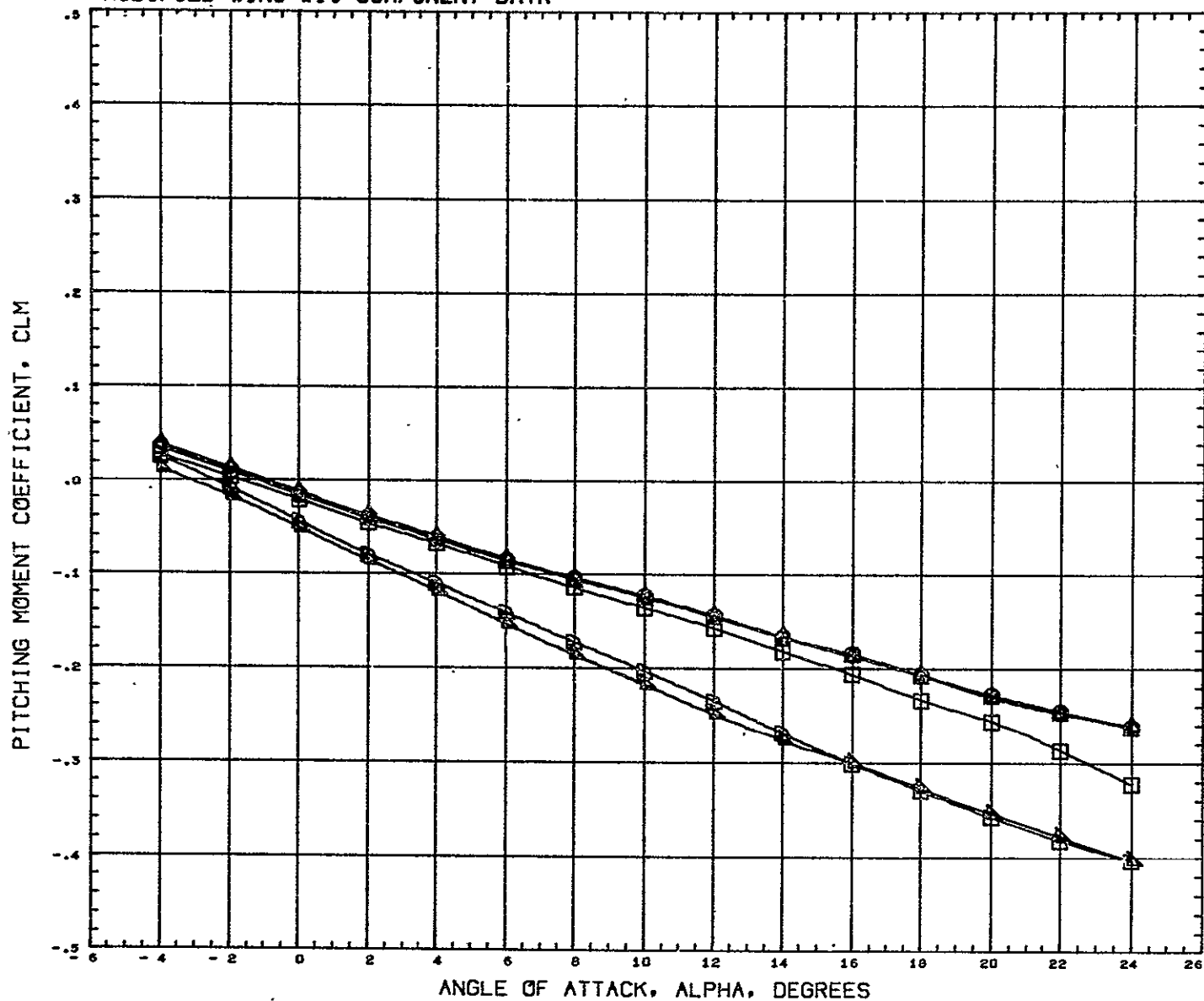
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XCMA50)	GDLST 587-D W10 (B19)
(XCMA19)	GDLST 587-D W10-1 (B19V7C4 POS.8)
(XCMA20)	GDLST 587-D W10-2 (B19V7C4 POS.8)
(XCMA64)	GDLST 587-D W10-3 (B20C4 POS.8)
(XCMA66)	GDLST 587-D W10-4 (B19V7C4 POS.1)
(XCMA73)	GDLST 587-D W10-5 (B19V7C4 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN.
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9389	IN.
SCALE	0.0125	



# MODIFIED WING W10 COMPONENT DATA

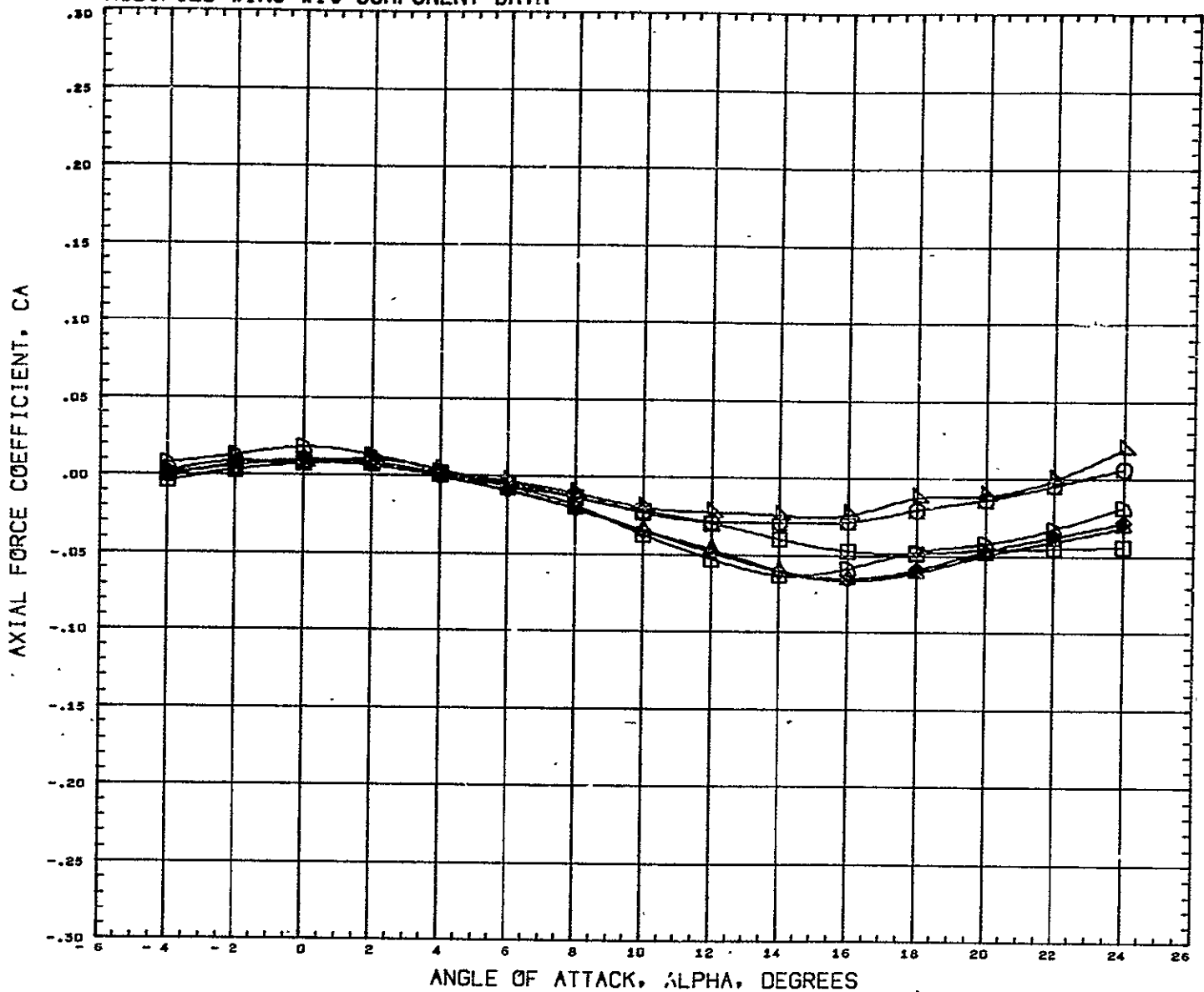


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XCHA50)	GDLST 587-0 W10 (B19)
(XCHA19)	GDLST 587-0 W10-1 (B19V7C4 POS.8)
(XCHA20)	GDLST 587-0 W10-2 (B19V7C4 POS.8)
(XCHA64)	GDLST 587-0 W10-3 (B20C4) POS.8)
(XCHA68)	GDLST 587-0 W10-4 (B19V7C4 POS.1)
(XCHA73)	GDLST 587-0 W10-5 (D19V7C4 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. 1"
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9360	IN.
SCALE	0.0175	

# MODIFIED WING W10 COMPONENT DATA

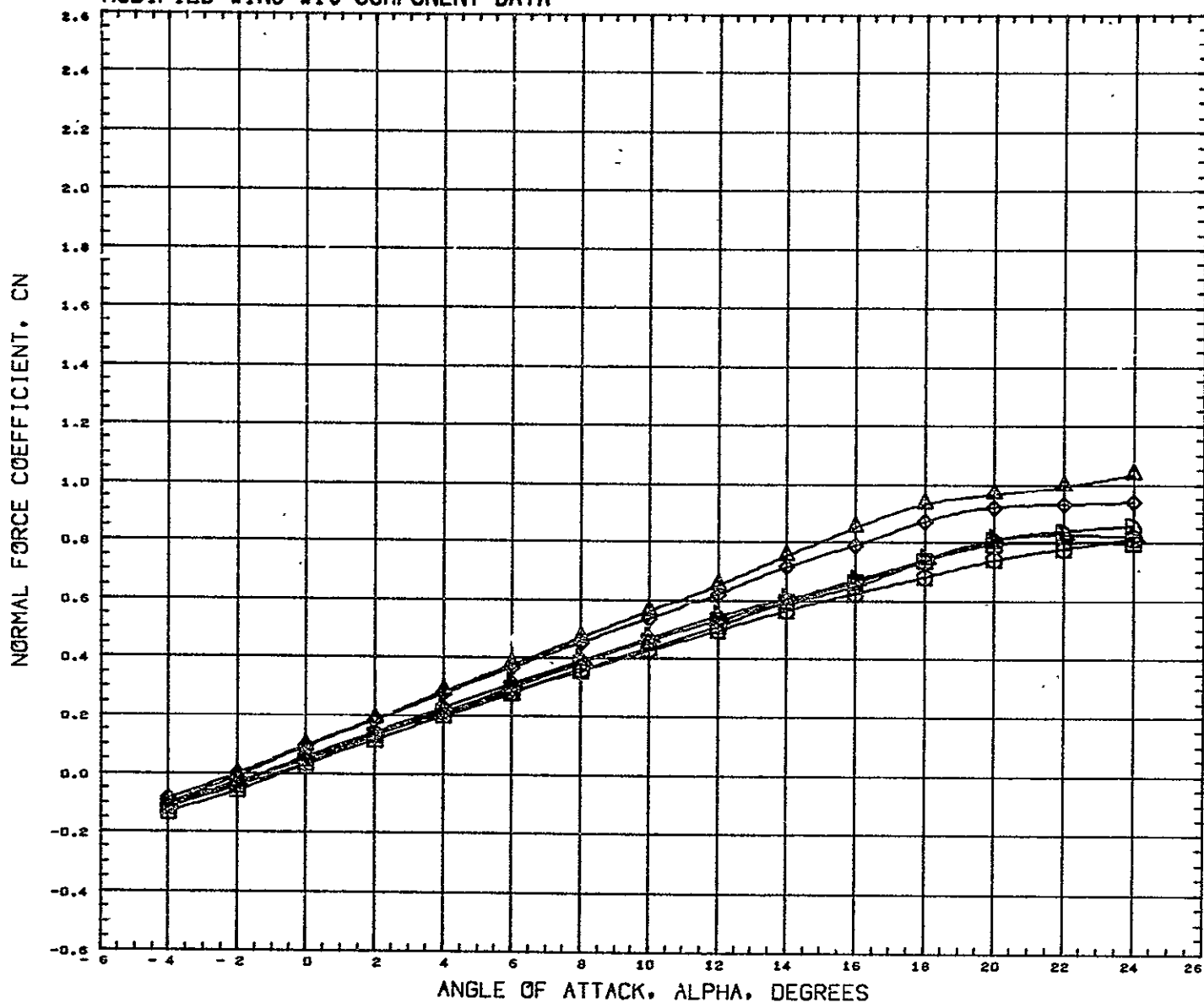


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XCHA50)	GDLST 587-0 W10 (B19)
(XCHA19)	GDLST 587-0 W10-1 (B19V7C4 POS.8)
(XCHA20)	GDLST 587-0 W10-2 (B19V7C4 POS.8)
(XCHA64)	GDLST 587-0 W10-3 (B20C4) POS.8)
(XCHA68)	GDLST 587-0 W10-4 (B19V7C4 POS.1)
(XCHA73)	GDLST 587-0 W10-5 (B19V7C4 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# MODIFIED WING W10 COMPONENT DATA

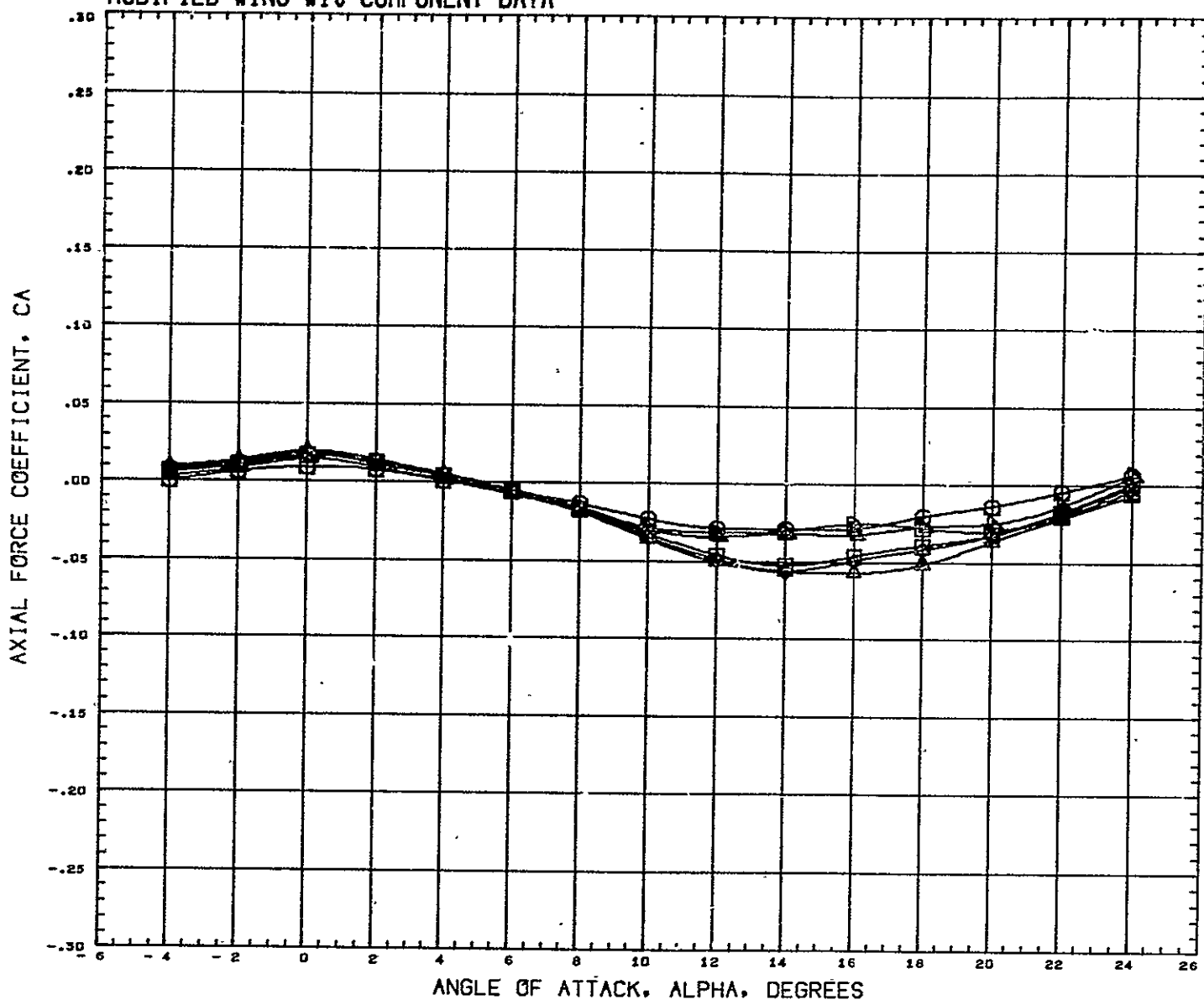


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XCHA50)	GDLST 587-0 W10 (B19)
(XCHA74)	GDLST 587-0 W10-6 (B19V7C4 POS.1)
(XCHA75)	GDLST 587-0 W10-7 (B19V7C4 POS.1)
(XCHA76)	GDLST 587-0 W10-8 (B19V7C4 POS.1)
(XCHA80)	GDLST 587-0 W10-9 (B19V7C7 POS.1)
(XCHA85)	GDLST 587-0 W10-10 (B19V7C7 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	SG. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9381	IN.
SCALE	0.0175	

# MODIFIED WING W10 COMPONENT DATA

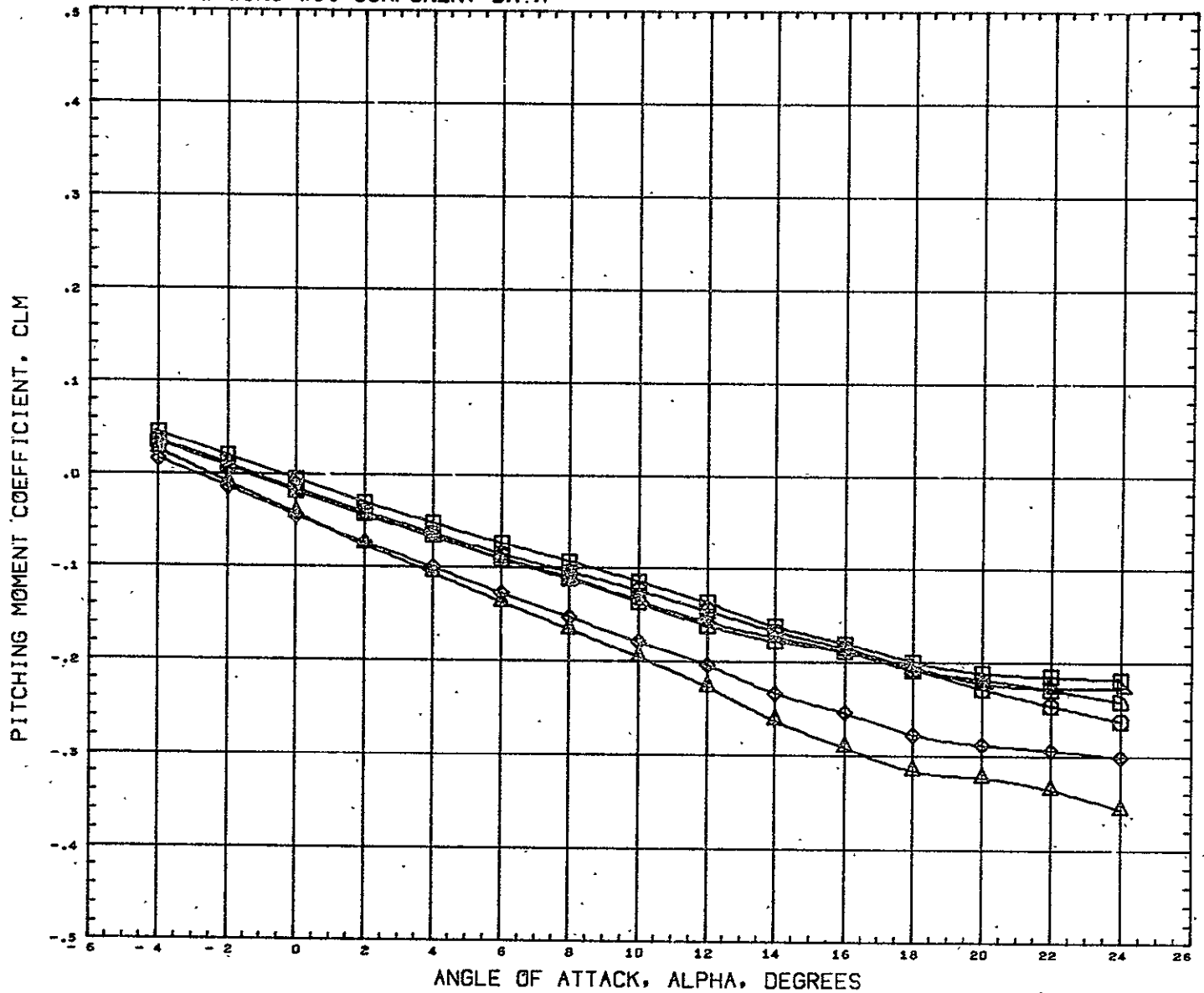


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XCHA50)	GDLST 587-D W10(B19)
(XCHA74)	GDLST 587-D W10-6(B19V7C4 POS.1)
(XCHA75)	GDLST 587-D W10-7(B19V7C4 POS.1)
(XCHA76)	GDLST 587-D W10-8(B19V7C4 POS.1)
(XCHA80)	GDLST 587-D W10-9(B19V7C7 POS.1)
(XCHA85)	GDLST 587-D W10-10(B19V7C7 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9382	IN.
SCALE	0.0175	

# MODIFIED WING W10 COMPONENT DATA

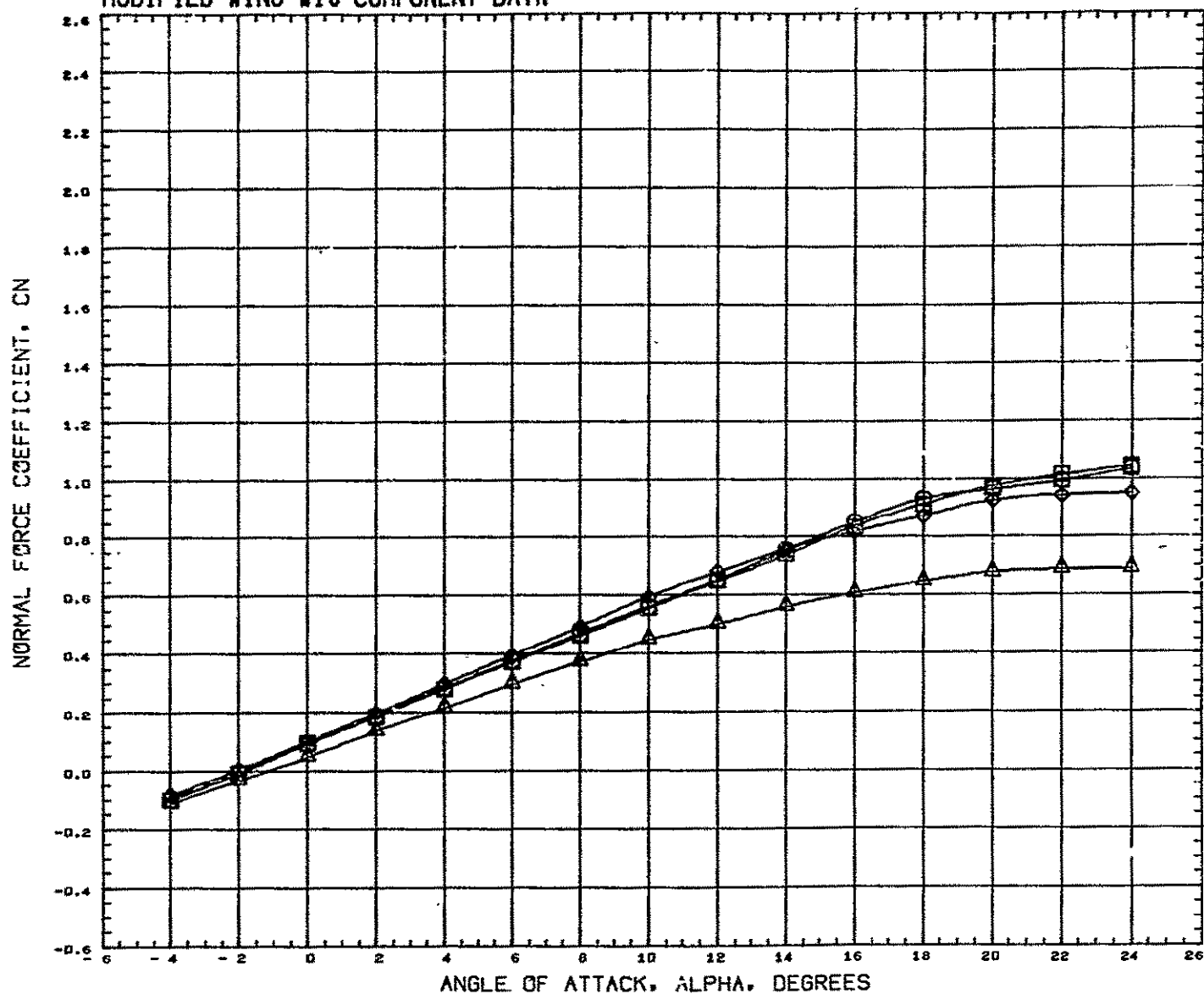


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XCMA50)	GDLST 587-0 W10(B19)
(XCMA74)	GDLST 587-0 W10-6(B19V7C4 POS.1)
(XCMA75)	GDLST 587-0 W10-7(B19V7C4 POS.1)
(XCMA76)	GDLST 587-0 W10-8(B19V7C4 POS.1)
(XCMA80)	GDLST 587-0 W10-9(B19V7C7 POS.1)
(XCMA85)	GDLST 587-0 W10-10(B19V7C7 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	Sq. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# MODIFIED WING W10 COMPONENT DATA



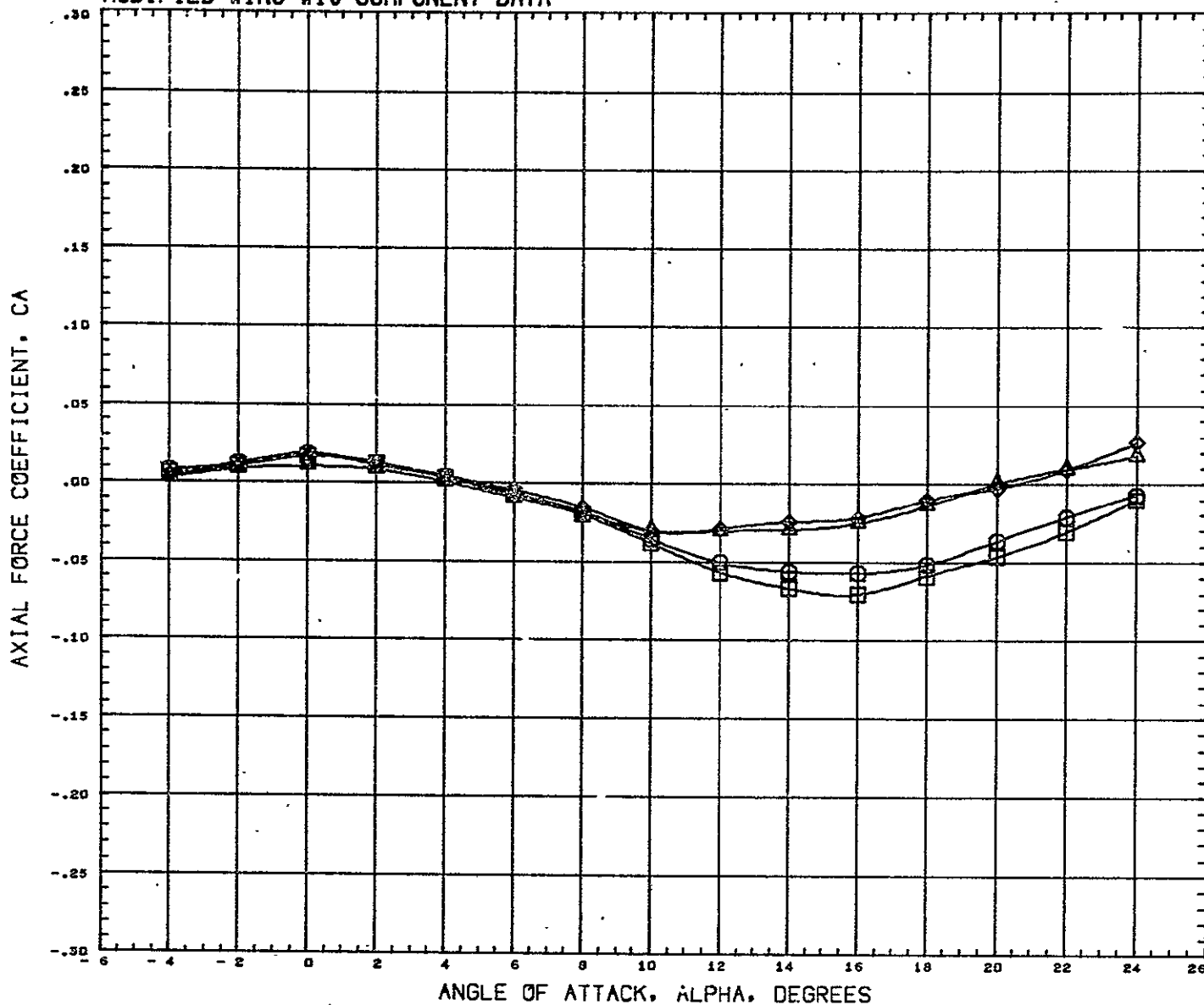
DATA SET SYMBOL	SYMBOL	CONFIGURATION DESCRIPTION
(XCHA74)	△	GDLST 587-D W10-6(B19V7C4 POS.1)
(XCHA89)	▽	GDLST 587-D W10-11(B19V7C7 POS.1)
(XCHA91)	◇	GDLST 587-D W10-12(B19V7C4 POS.1)
(XCHA94)	□	GDLST 587-D W10-13(B19V7C4 POS.1)

BETA 0.000

## REFERENCE INFORMATION

REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# MODIFIED WING W10 COMPONENT DATA

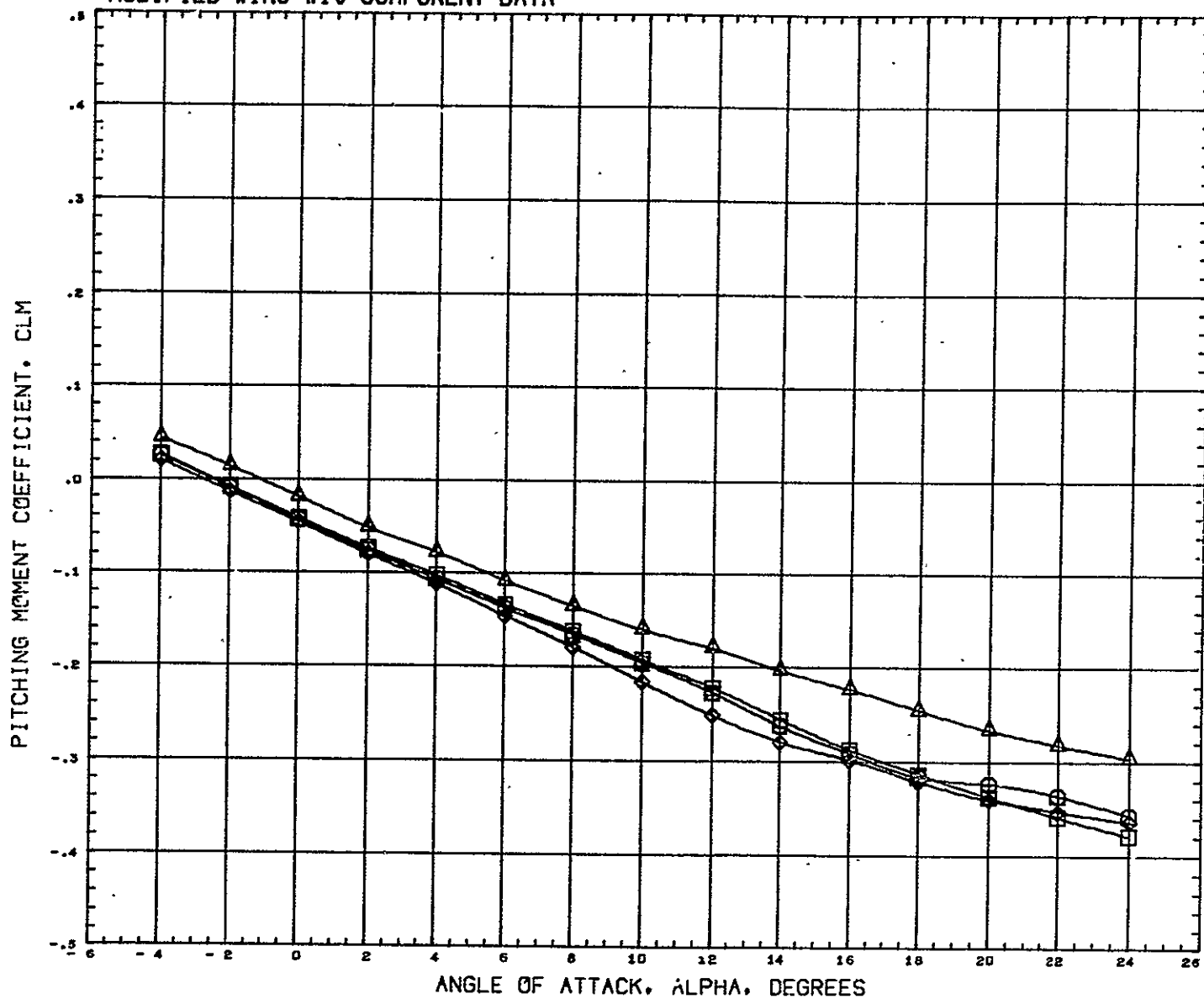


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(XCMA74)	GDLST 587-D W10-6(B19V7C4 POS.1)
(XCMA89)	GDLST 587-D W10-11(B19V7C7 POS.1)
(XCMA91)	GDLST 587-D W10-12(B19V7C4 POS.1)
(XCMA94)	GDLST 587-D W10-13(B19V7C4 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

# MODIFIED WING W10 COMPONENT DATA



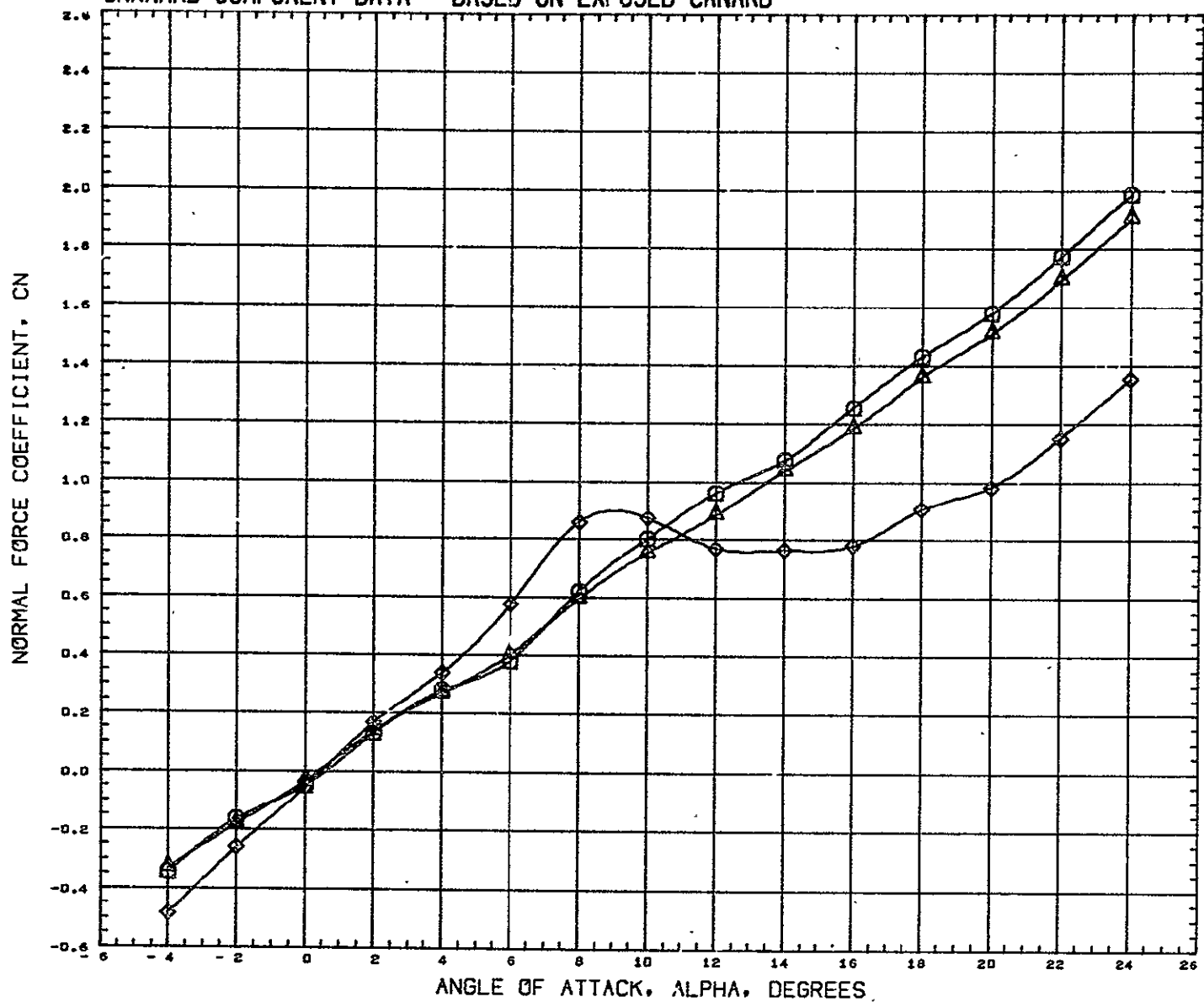
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(XCHA74)	○	GDLST 587-0 W10-6(B19V7C4 POS.1)
(XCHA89)	△	GDLST 587-0 W10-11(B19V7C7 POS.1)
(XCHA91)	◇	GDLST 587-0 W10-12(B19V7C4 POS.1)
(XCHA94)	□	GDLST 587-0 W10-13(B19V7C4 POS.1)

BETA 0.000

REFERENCE INFORMATION		
REFS	343.8704	SQ. IN
REFL	15.0620	IN.
REFB	30.4400	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	



# CARNARD COMPONENT DATA - BASED ON EXPOSED CANARD

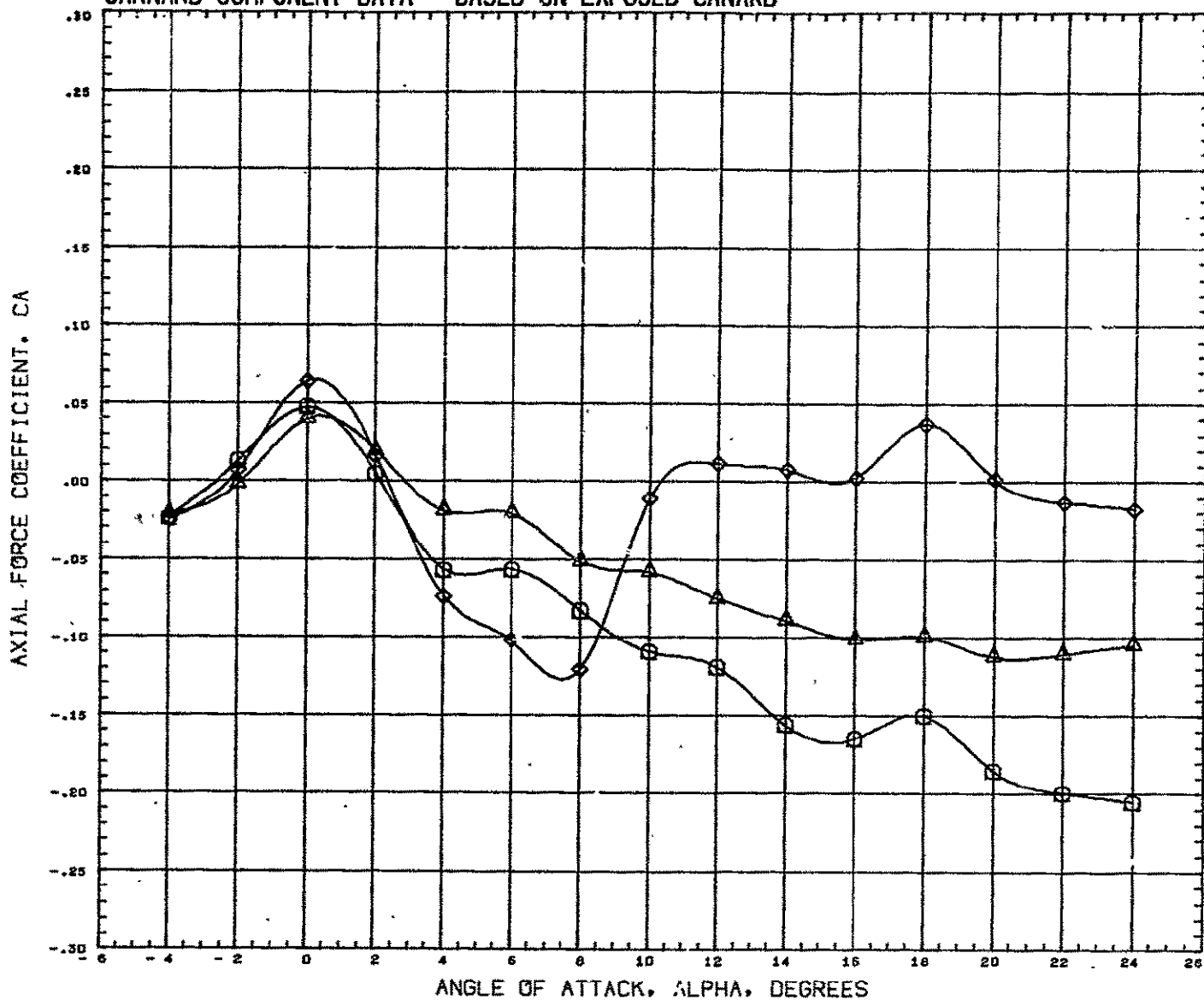


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(ZCHA52)	○	GDLST 587-D C4 POS.1 (B19)
(ZCHA53)	△	GDLST 587-D C5 POS.1 (B19)
(ZCHA54)	◇	GDLST 587-D C6 POS.1 (B19)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS

BETA 0.000

# CARNARD COMPONENT DATA - BASED ON EXPOSED CANARD

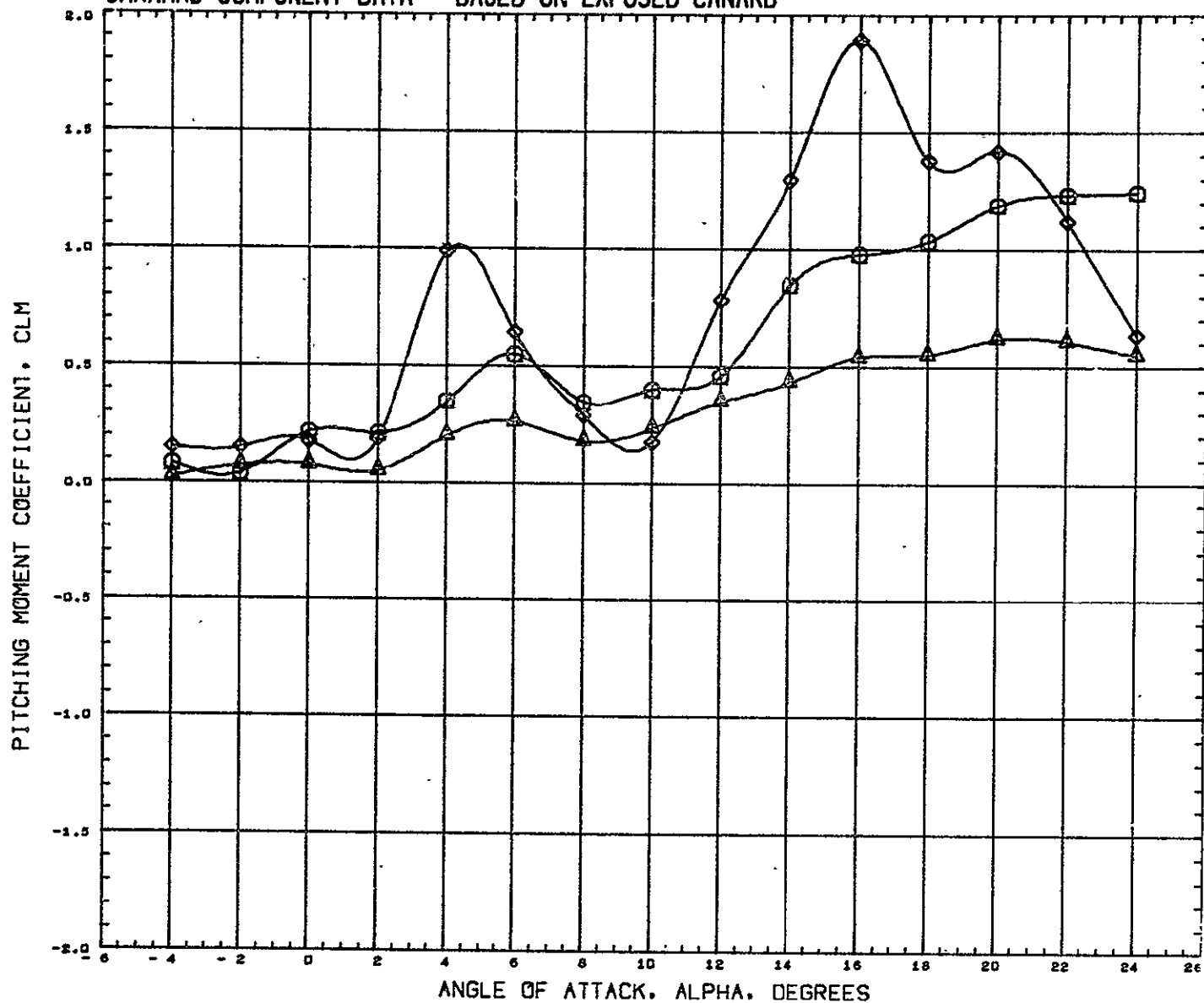


DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZCHA52) GDLST 587-D C4 POS.1 (B19)  
 (ZCHA53) GDLST 587-D C5 POS.1 (B19)  
 (ZCHA54) GDLST 587-D C6 POS.1 (B19)

SEE THE ASSOCIATED DATA  
 DOCUMENT FOR REFERENCE  
 CHARACTERISTICS

BETA 0.000

# CARNARD COMPONENT DATA - BASED ON EXPOSED CANARD

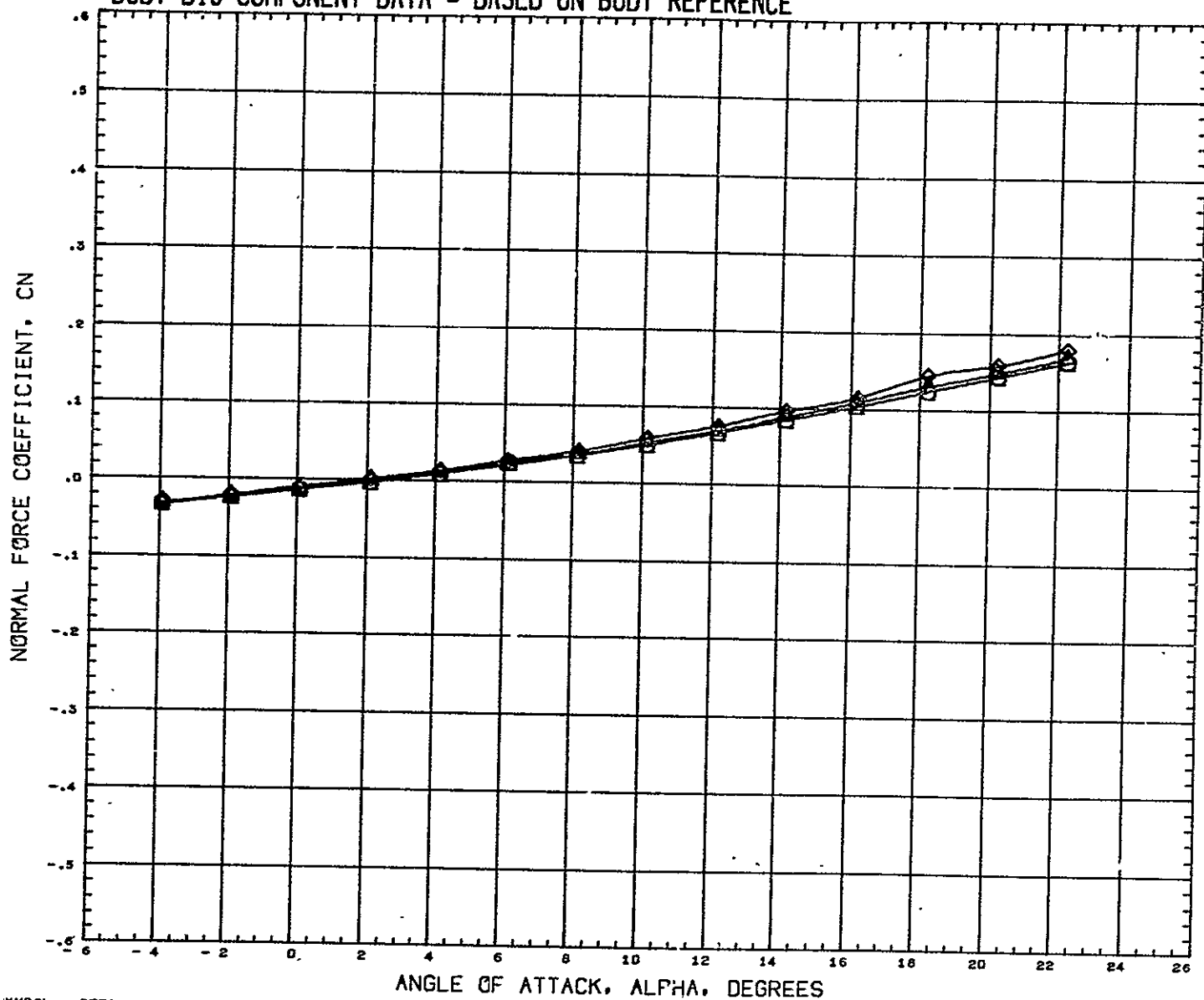


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(ZCHA52) □	GDLST 587-D C4 POS.1 (B19)
(ZCHA53) △	GDLST 587-D C5 POS.1 (B19)
(ZCHA54) ◇	GDLST 587-D C6 POS.1 (B19)

SEE THE ASSOCIATED DATA DOCUMENT FOR REFERENCE CHARACTERISTICS

BETA 0.000

# BODY B19 COMPONENT DATA - BASED ON BODY REFERENCE



SYMBOL    BETA    PARAMETRIC VALUES  
 ○        0.000    60.400  
 △        4.000  
 ◇        8.000

DATA HIST. CODE    MVVTS

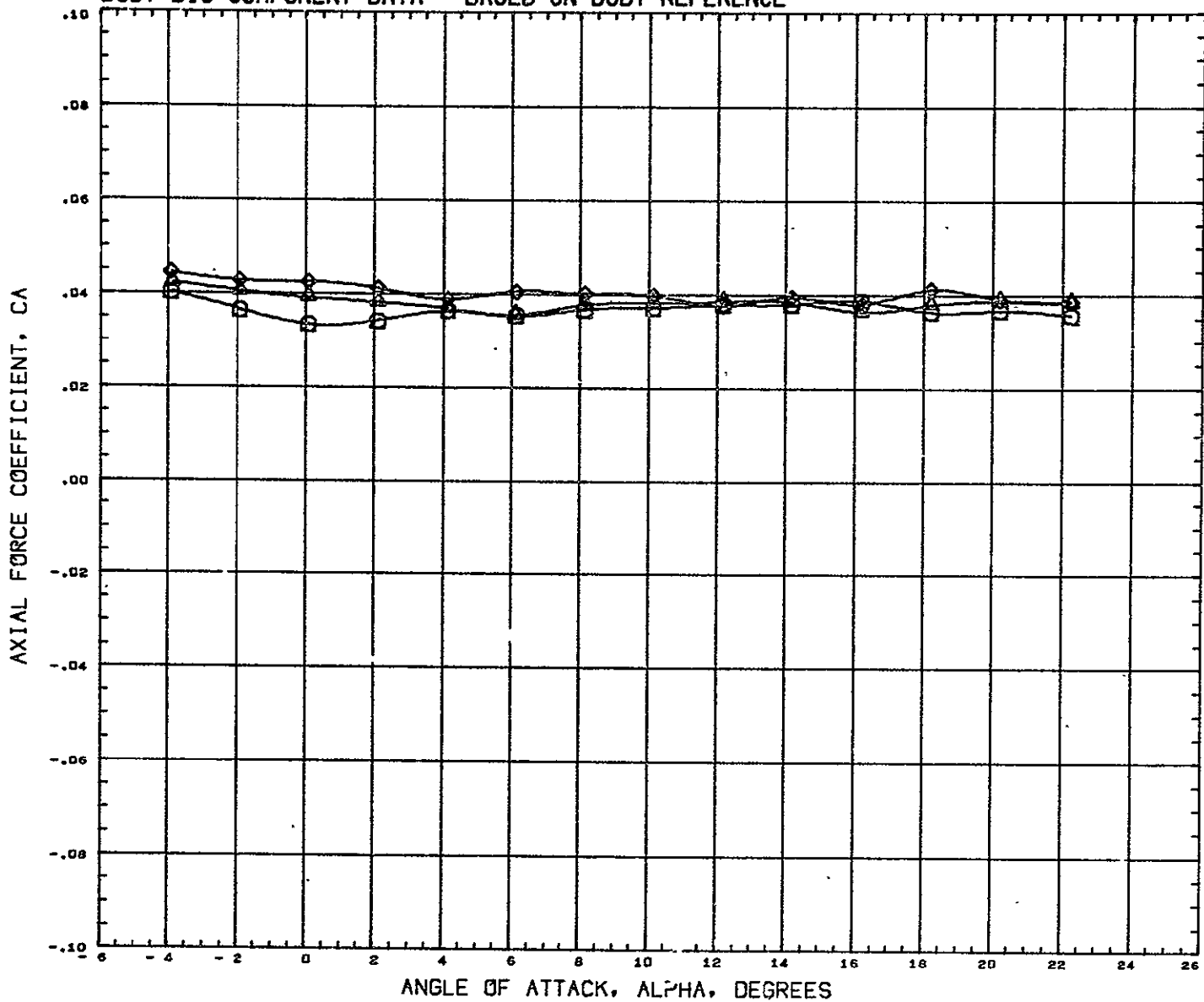
REFERENCE INFORMATION

REFS	299.7004	SQ. IN
REFL	48.2480	IN.
REFB	6.7720	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

GDLST 587-0    B19

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# BODY B19 COMPONENT DATA - BASED ON BODY REFERENCE



SYMBOL	BETA	PARAMETRIC VALUES
○	0.000	60.400
□	4.000	
◇	8.000	

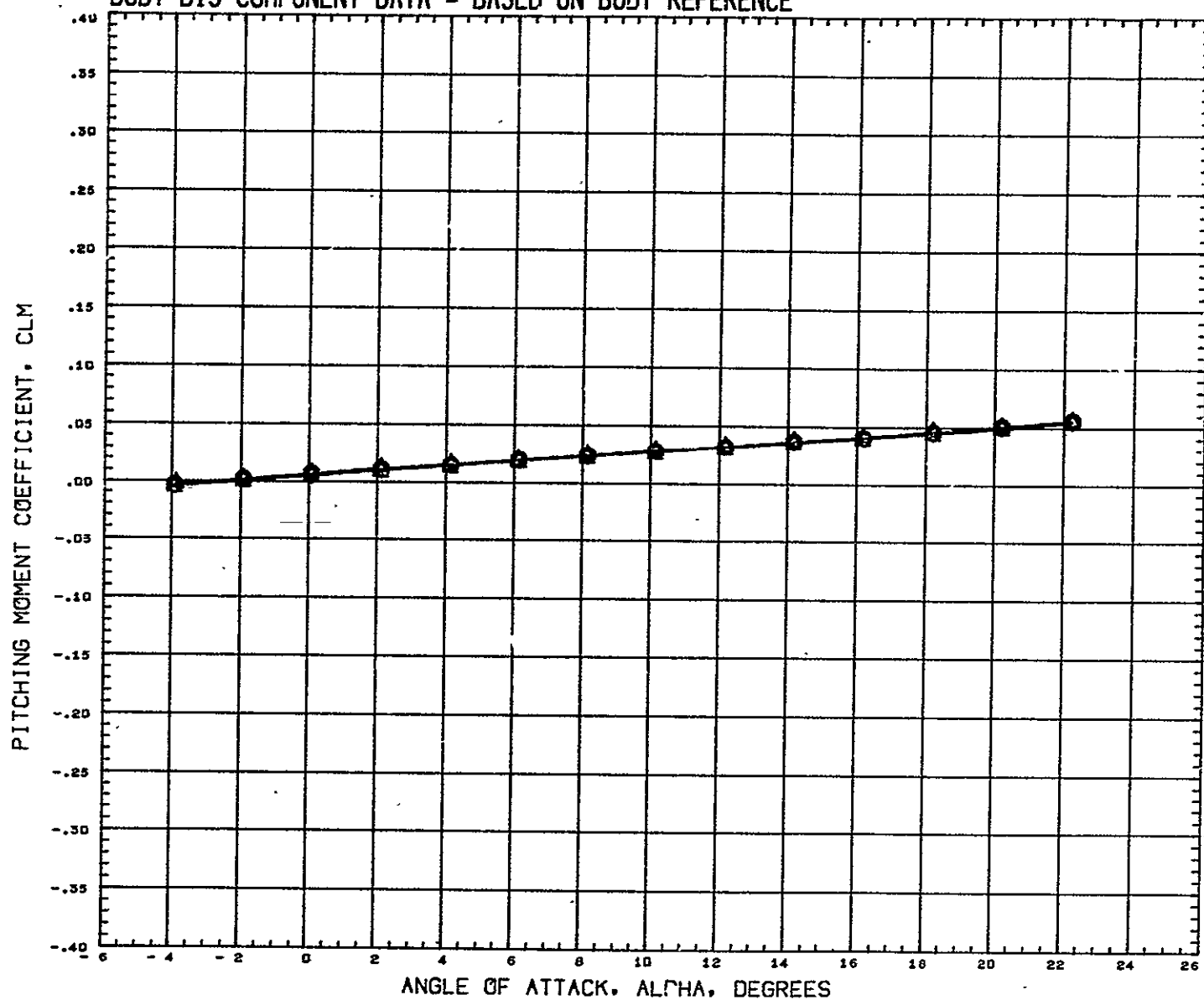
REFERENCE INFORMATION		
REFS	298.7004	SQ. IN
REFL	48.2480	IN.
REFB	6.7720	IN.
XMRP	33.4360	IN.
YMRP	0.0000	IN.
ZMRP	3.9380	IN.
SCALE	0.0175	

DATA HIST. CODE NVVTS

GDLST 587-0 B19

(ACMX51) 08 AUG 71 PAGE 201

# BODY B19 COMPONENT DATA - BASED ON BODY REFERENCE



SYMBOL    BZTA    PARAMETRIC VALUES  
 O        0.000    60.400  
 Δ        4.000  
 ◇        8.000

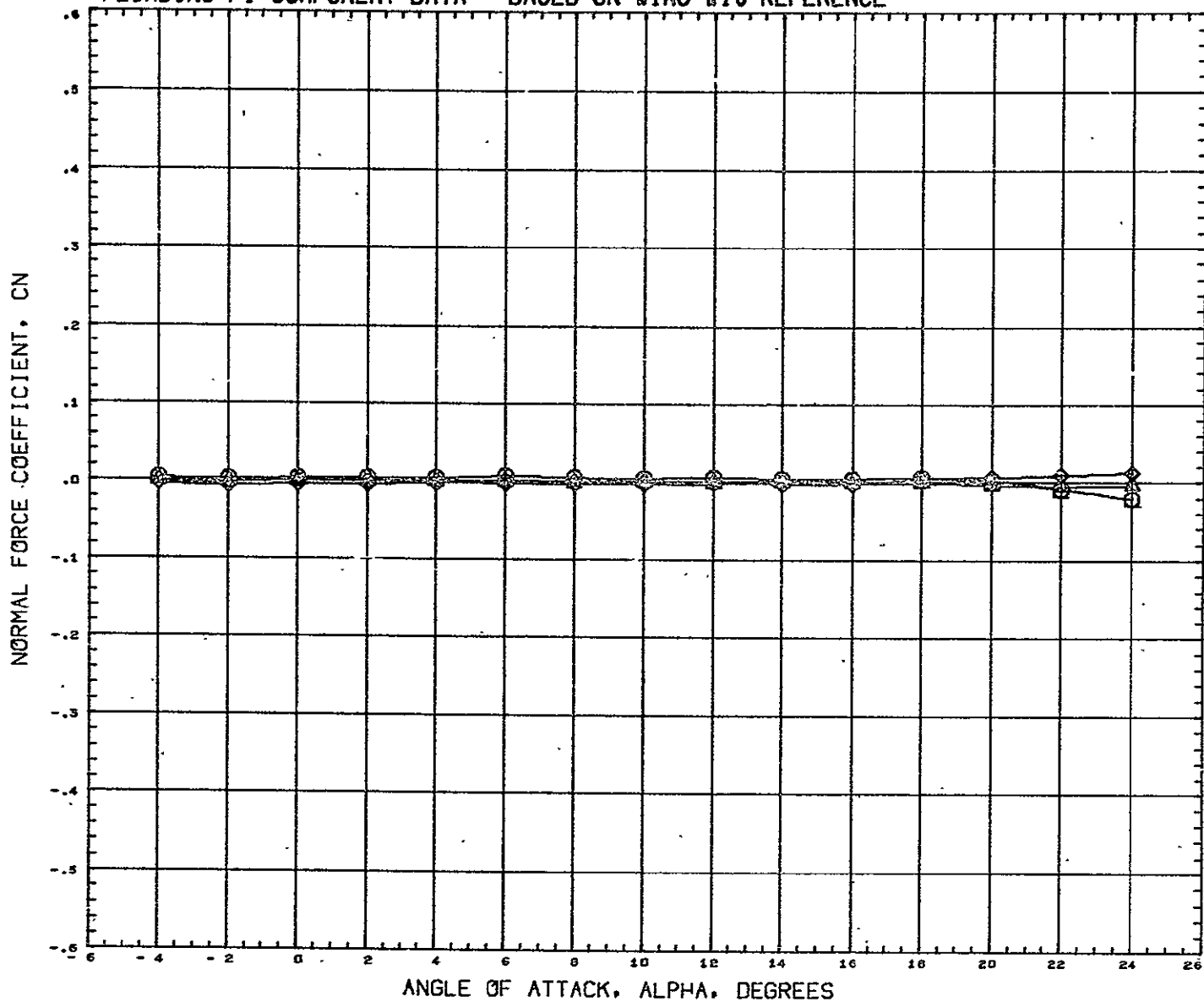
DATA HIST. CODE    MVVTS

REFERENCE INFORMATION  
 REFS    298.7004    SQ. IN  
 REFL    48.2480    IN.  
 REFB    6.7720    IN.  
 XMRP    33.4360    IN.  
 YMRP    0.0000    IN.  
 ZMRP    3.9380    IN.  
 SCALE    0.0175

GDLST 587-0    B19

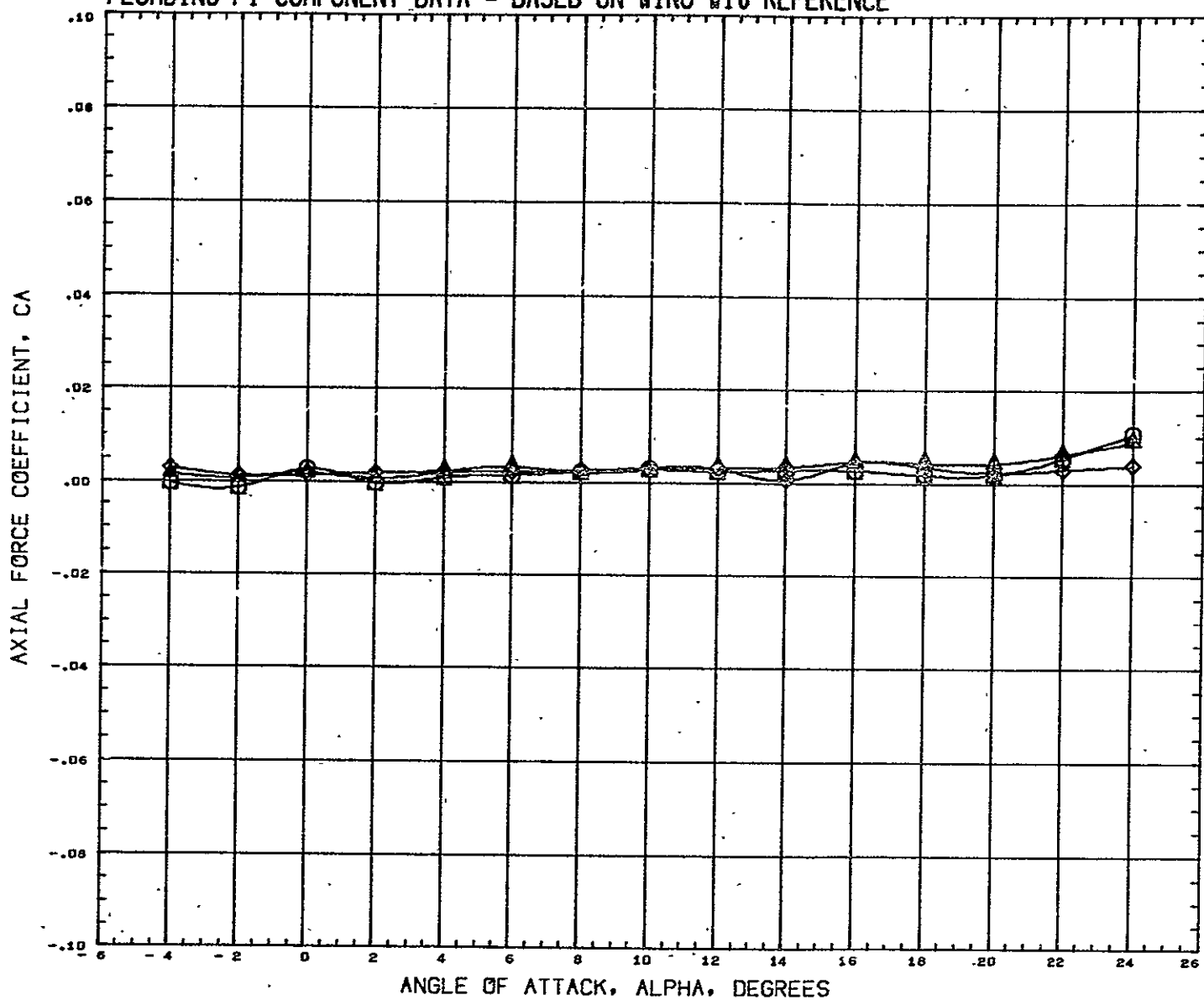
(ACMX51) 08 AUG 71    PAGE 202

# PLUMBING P1 COMPONENT DATA - BASED ON WING W10 REFERENCE



SYMBOL	BETA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	CANARD 1.000 Q 60.000	DATASET BETA DATASET BETA	REFS 343.8704 SQ. IN
△	4.000	ELEVTR 0.000 AILRON 0.000	XCHAD1 0.000 XCHAD2 4.000	REFL 15.0620 IN.
◇	8.000	CANVTR 0.000 CANRON 0.000	XCHAD3 8.000	REFB 30.4400 IN.
		CFLAPR 0.000 RUDDER 0.000		XMRP 33.4360 IN.
		DELO 0.000 DERO 0.000		YMRP 0.0000 IN.
		DATA HIST. CODE MVVTI+C		ZMRP 3.9380 IN.
				SCALE 0.0175

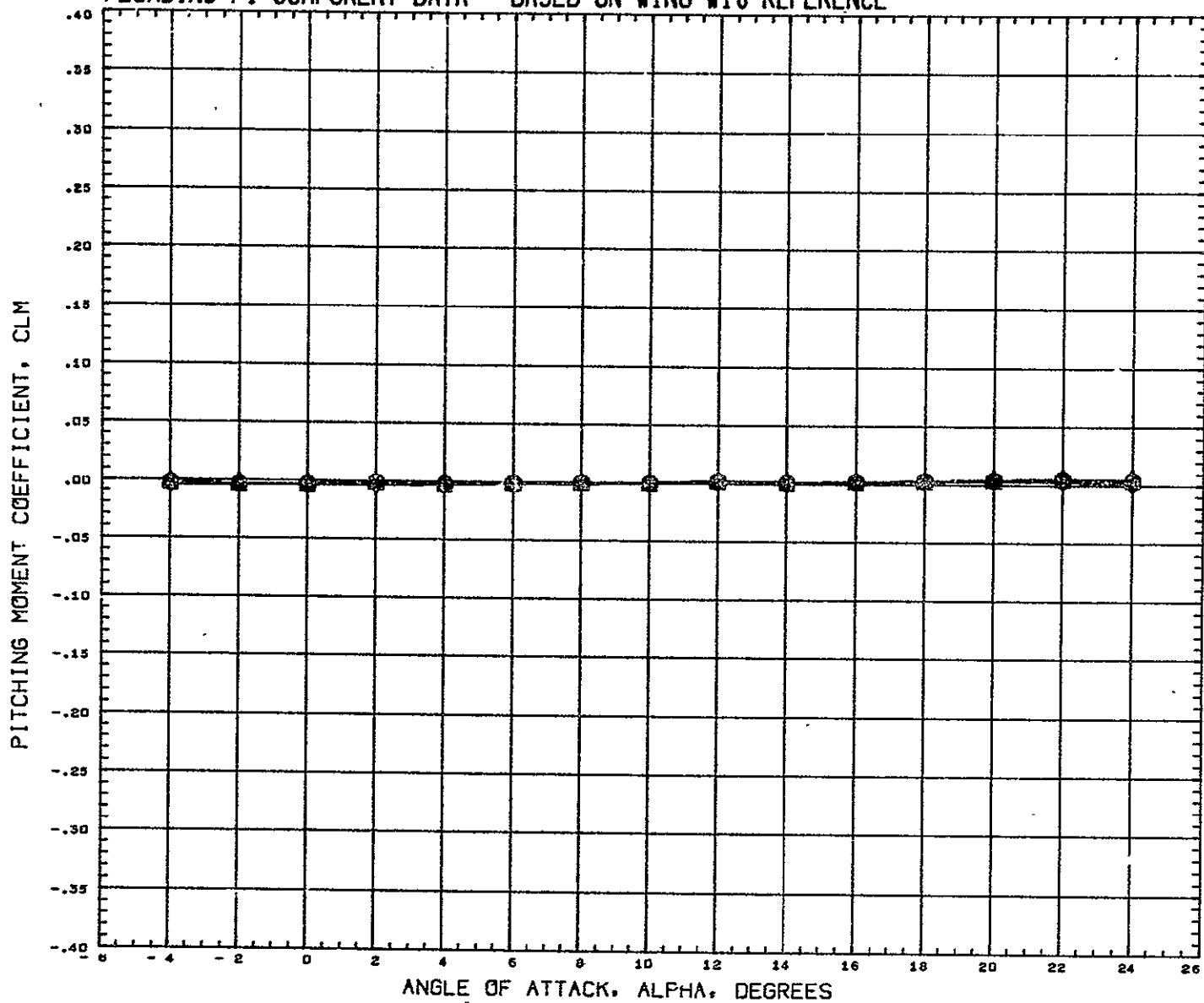
# PLUMBING P1 COMPONENT DATA - BASED ON WING W10 REFERENCE



SYMBOL	BETA		PARAMETRIC VALUES				DATA SOURCE		REFERENCE INFORMATION	
○	0.000	CANARD	1.000	Q	60.000	DATASET	BETA	DATASET	BETA	REFS
△	4.000	ELEVTR	0.000	AILRON	0.000	XCMA01	0.000	XCMA02	4.000	REFL
◇	8.000	CANVTR	0.000	CANRON	0.000	XCMA03	8.000			REFB
		CFLAPR	0.000	RUDDER	0.000					XMRP
		DELO	0.000	DERO	0.000					YNRP
										ZMRP
										SCALE



# PLUMBING P1 COMPONENT DATA - BASED ON WING W10 REFERENCE

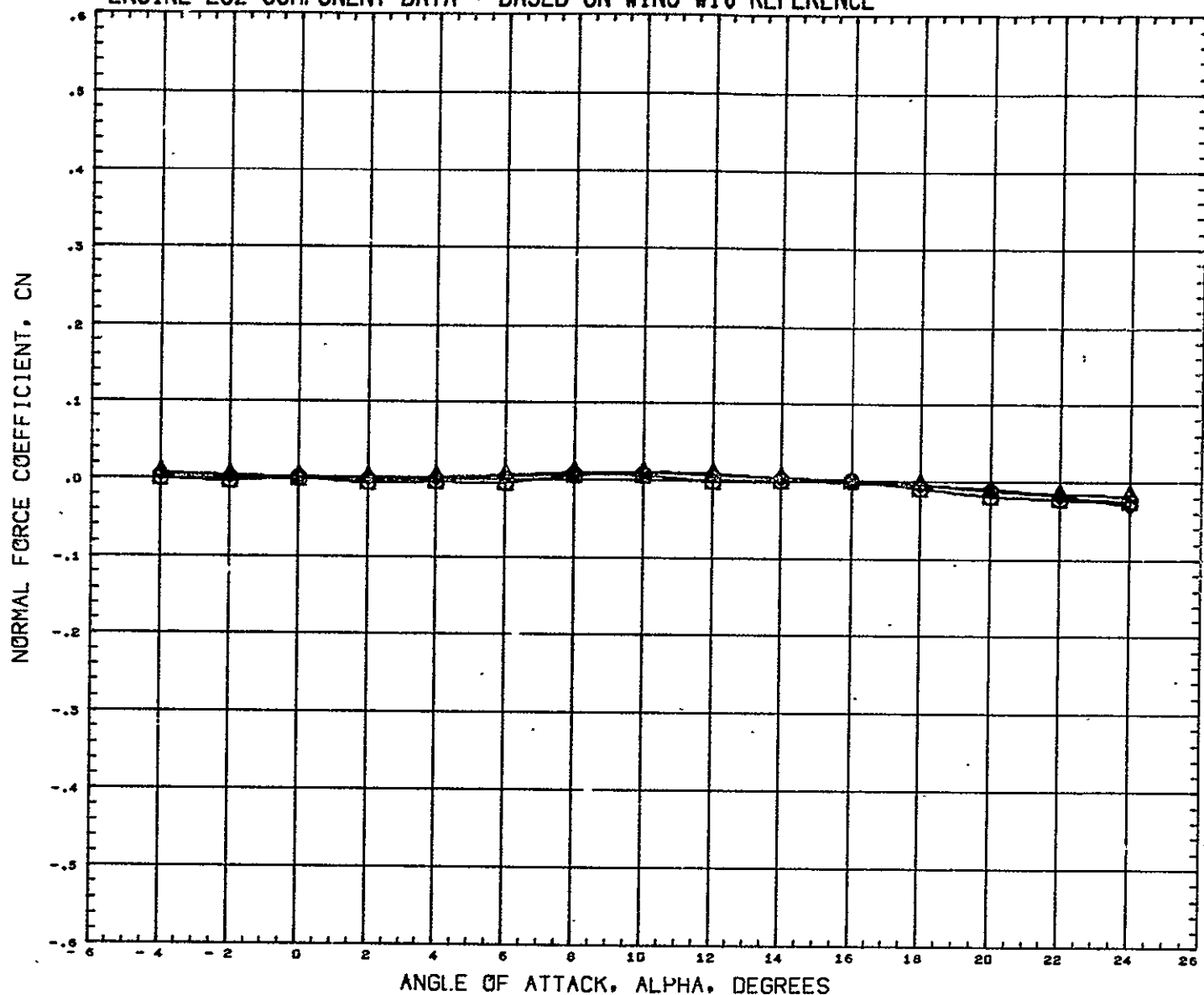


SYMBOL	BETA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	0.000	CANARD	1.000	Q	60.000	DATASET	BETA		REFS	343.6704	SG. IN
△	4.000	ELEVTR	0.000	AILRON	0.000	XCMA01	0.000	XCMA02	REFL	15.0620	IN.
◇	8.000	CANVTR	0.000	CANRON	0.000	XCMA03	8.000		REFB	30.4400	IN.
		CFLAPR	0.000	RUDDER	0.000				XMRP	33.4360	IN.
		DELO	0.000	DERO	0.000				YMRP	0.0000	IN.
		DATA HIST. CODE	MVVTI*C						ZMRP	3.9360	IN.
									SCALE	0.0175	

GDLST 587-0 P1 (B19W10V7C4)

(XCMA01) 08 AUG 71 PAGE 205

# ENGINE E32 COMPONENT DATA - BASED ON WING W10 REFERENCE



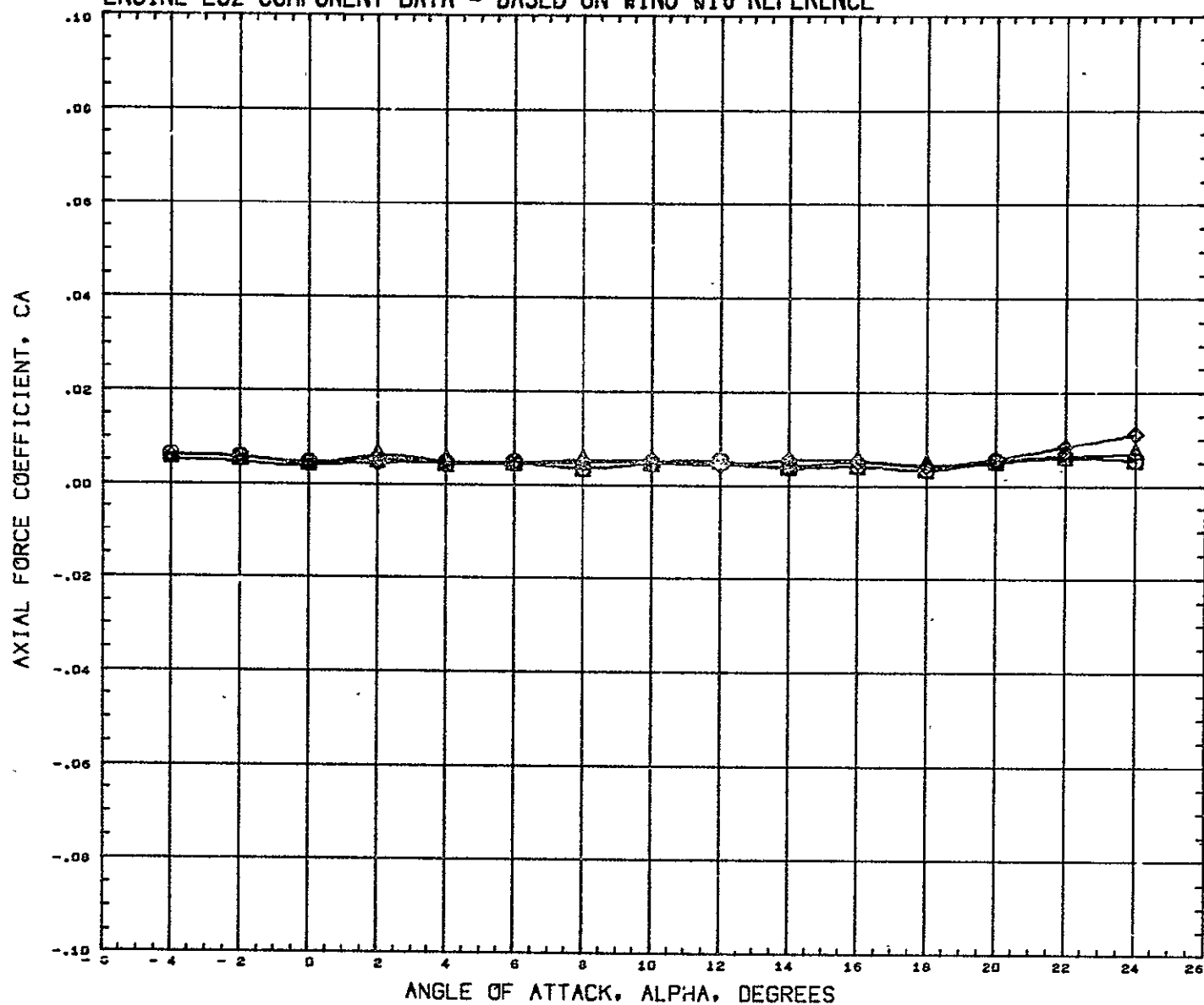
ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	BETA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	0.000	CANARD	1.000	Q	60.000	DATASET	BETA		REFS	343.8704	SG. IN
△	4.000	ELEVTR	0.000	AILRON	0.000	XCMA13	0.000		REFL	15.0620	IN.
◇	8.000	CANVTR	0.000	CANRON	0.000	XCMA15	8.000	XCMA14	REFB	30.4400	IN.
		CFLAPR	0.000	RUDDER	0.000				XMRP	33.4560	IN.
		DELO	0.000	DERO	0.000				YMRP	0.0000	IN.
									ZMRP	3.9380	IN.
									SCALE	0.0175	
		DATA HIST. CODE MVVTI+C									

GDLST 587-0 E32 (B19W10V7P1C4)

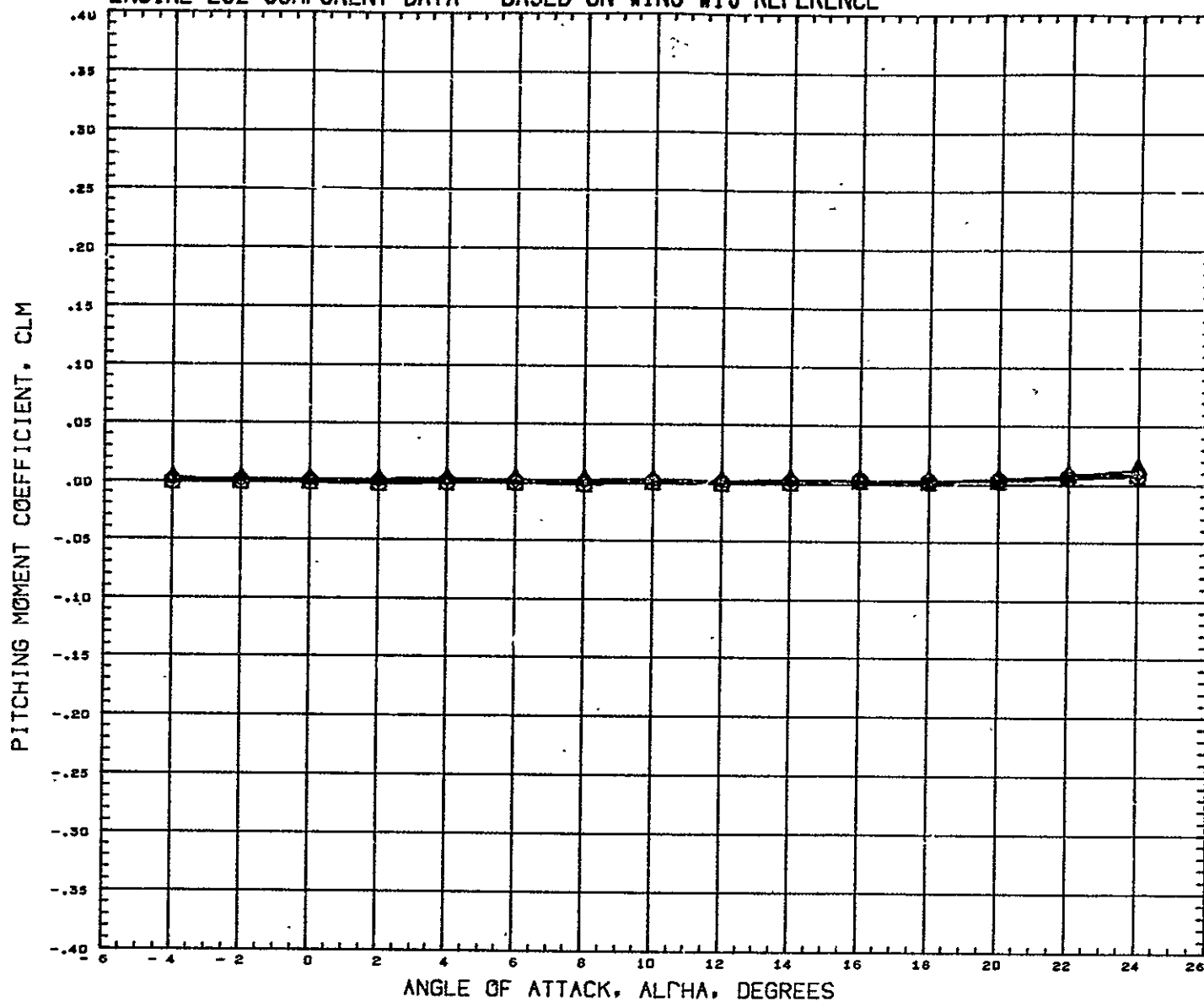
(XCMA13) 08 AUG 71 PAGE 206

# ENGINE E32 COMPONENT DATA - BASED ON WING W10 REFERENCE



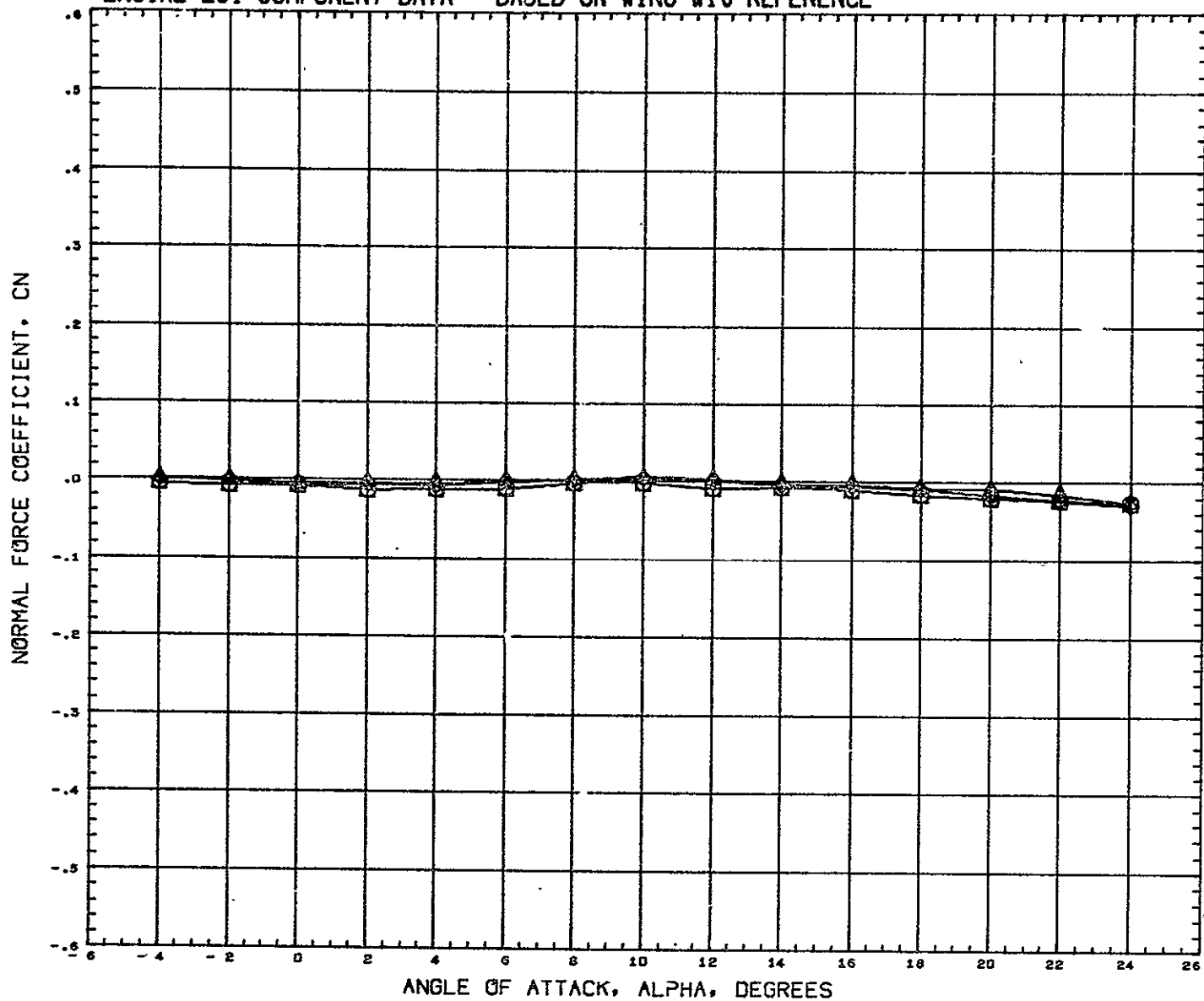
SYMBOL	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
	BETA				BETA				REFS		
○	0.000	CANARD	1.000	Q	60.000	DATASET	BETA		343.8704	Sq. IN	
△	4.000	ELEVTR	0.000	A1LRON	0.000	XCMA13	0.000	XCMA14	15.0620	IN.	
◇	8.000	CANVTR	0.000	CANRON	0.000	XCMA15	8.000		30.4400	IN.	
		CFLAPR	0.000	RUDDER	0.000				33.4360	IN.	
		DELO	0.000	DERO	0.000				0.0000	IN.	
		DATA HIST. CODE		MYVTI#C					ZMRP	3.9380	IN.
									SCALE	0.0175	

# ENGINE E32 COMPONENT DATA - BASED ON WING W10 REFERENCE



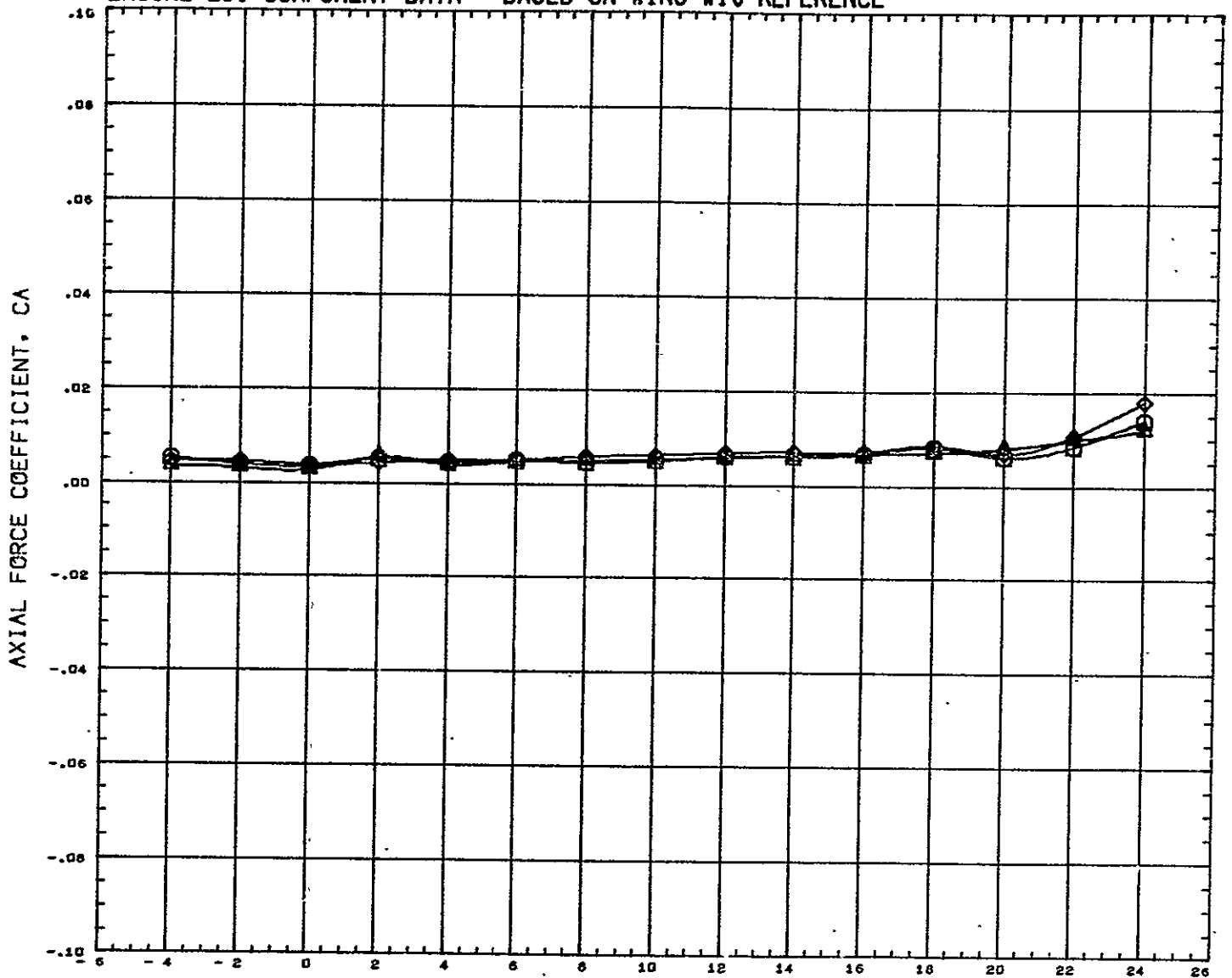
FREE OF PAYMENT - PAYMENT DELETED												
SYMBOL	BETA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	0.000	CANARD	1.000	Q	60.000	DATASET	BETA	DATASET	BETA	REFS	343.8704	SQ. IN
△	4.000	ELEVTR	0.000	AILRON	0.000	XCMA13	0.000	XCHA14	4.000	REFL	15.0620	IN.
◇	8.000	CANVTR	0.000	CANRON	0.000	XCMA15	8.000			REFB	30.4400	IN.
		CFLAPR	0.000	RUDDER	0.000					XMRP	33.4360	IN.
		DELO	0.000	DERO	0.000					YNRP	0.0000	IN.
		DATA HIST. CODE	MVVTI*C							ZMRP	3.9380	IN.
										SCALE	0.0175	

# ENGINE E31 COMPONENT DATA - BASED ON WING W10 REFERENCE



SYMBOL		BETA		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○		0.000	CANARD	1.000	Q	60.000	DATA SET	BETA		DATA SET	BE	REFS	343.8704	SQ. IN.
△		4.000	ELEVTR	0.000	AILRON	0.000	XCHA16	0.000		XCHA17	4.000	REFL	15.0620	IN.
◇		8.000	CANVTR	0.000	CANRON	0.000	XCHA18	8.000				REFB	30.4400	IN.
			CFLAPR	0.000	RUDDER	0.000						XMRP	33.4360	IN.
			DELO	0.000	DERO	0.000						YMRP	0.0000	IN.
			DATA HIST. CODE	HVVTI* C								ZMRP	3.9380	IN.
												SCALE	0.0175	

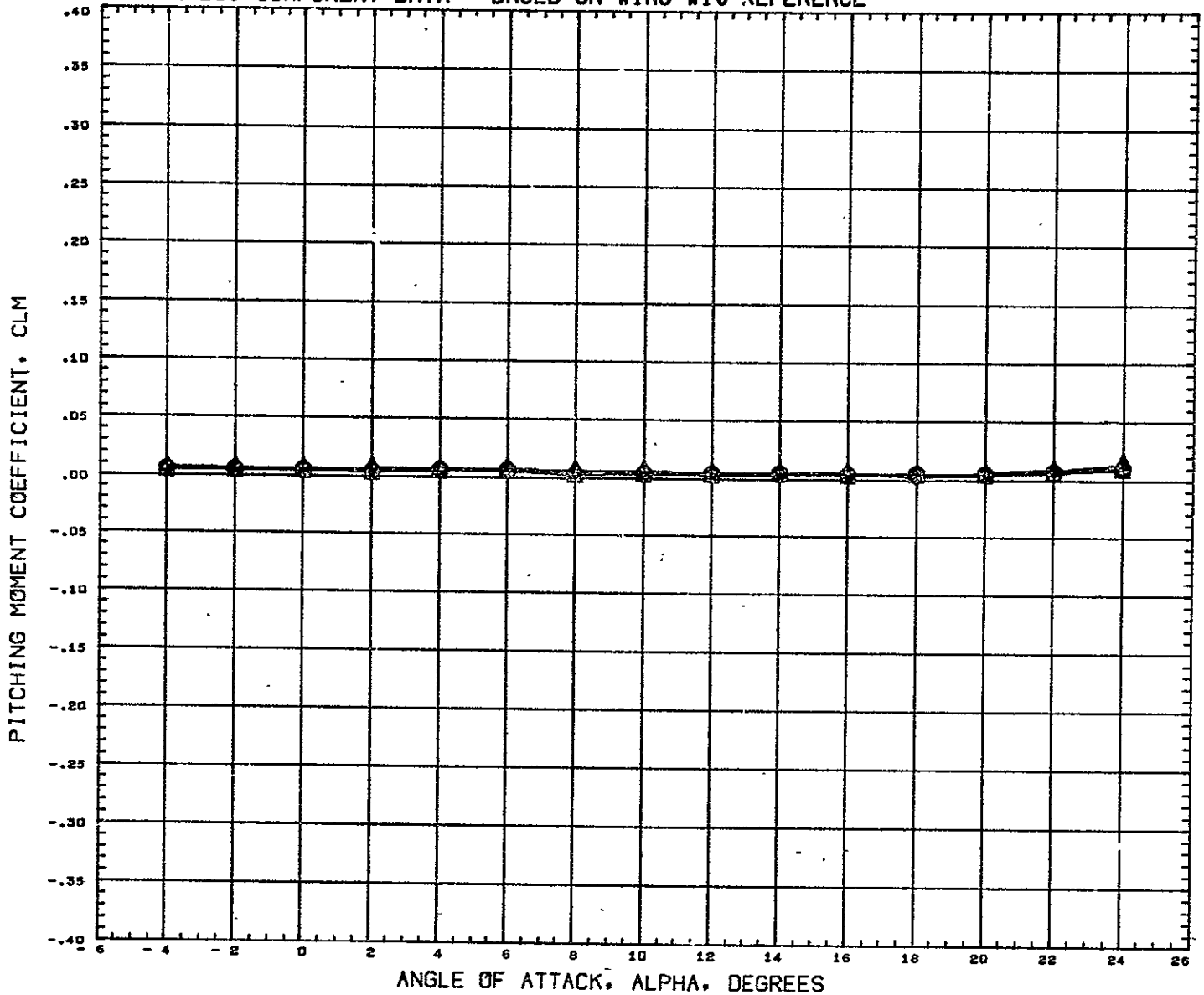
# ENGINE E31 COMPONENT DATA - BASED ON WING W10 REFERENCE



ANGLE OF ATTACK, ALPHA, DEGREES

SYMBOL	BETA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	0.000	CANARD 1.000 0 60.000	DATASET BETA DATASET BETA	REFS 343.8704 SQ. 14
△	4.000	ELEVTR 0.000 AILRON 0.000 XCHA16 0.000	BETA 0.000 XCHA17 4.000	REFL 15.0620 IN.
◇	8.000	CANVTR 0.000 CANRON 0.000 XCHA18 0.000		REFB 30.4400 IN.
		CFLAPR 0.000 RUDDER 0.000		XMRP 33.4360 IN.
		DELO 0.000 DERO 0.000		YMRP 0.0000 IN.
		DATA HIST. CODE HVVTI*C		ZMRP 3.9380 IN.
				SCALE 0.0175

# ENGINE E31 COMPONENT DATA - BASED ON WING W10 REFERENCE

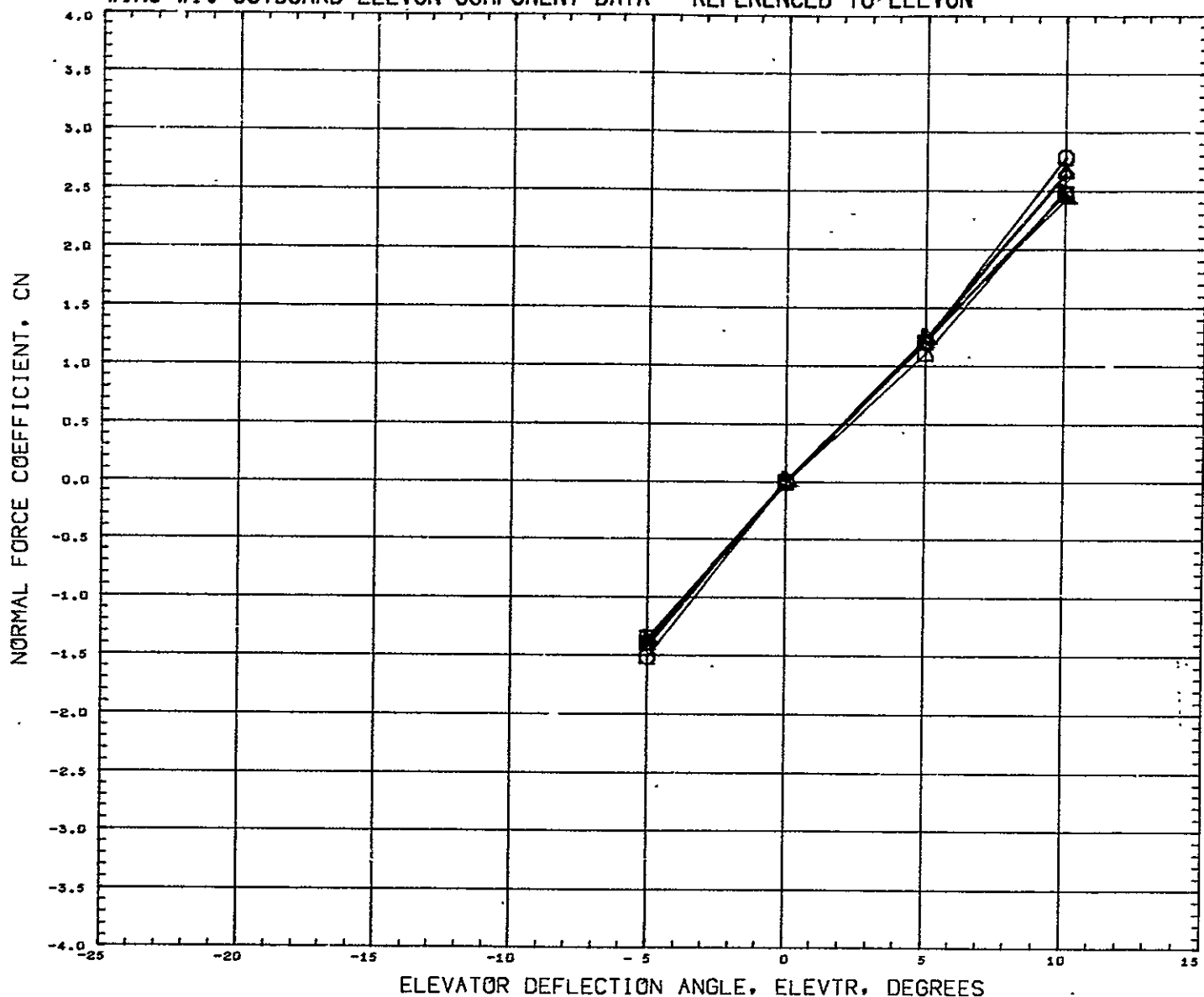


SYMBOL	BETA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	0.000	<u>CANARD</u>	1.000	Q	60.000	DATASET	BETA	DATASET	BETA	REFS	343.9704	SQ. IN
△	4.000	ELEVTR	0.000	AILRON	0.000	XCMA16	0.000	XCMA17	4.000	REFL	15.0620	IN.
◇	8.000	CANVTR	0.000	CANRON	0.000	XCMA18	8.000			REFB	30.4400	IN.
		CFLAPR	0.000	RUDDER	0.000					XMRP	33.4360	IN.
		DELO	0.000	DERO	0.000					YMRP	0.0000	IN.
										ZMRP	3.9380	IN.
		DATA HIST. CODE	MVVTI+C							SCALE	0.0175	

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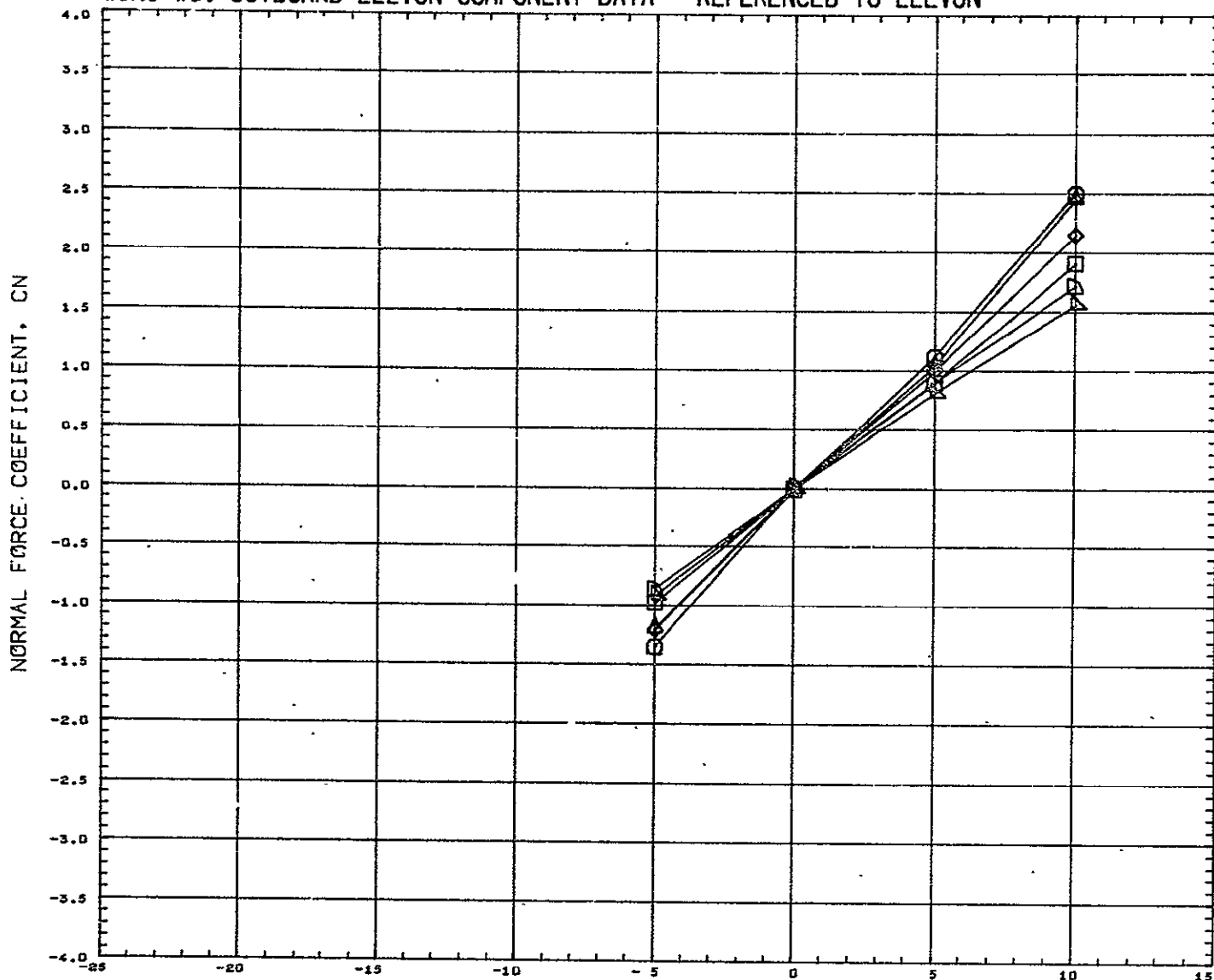
# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
○	- 4.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	12.1170	SQ. IN
□	- 2.000	AILRON	0.000	CANARD	1.000	UCHA84	- 5.000	UCHA81	0.000	REFL	1.8400	IN.
◇	0.000	CANVTR	0.000	CANRON	0.000	UCHA82	5.000	UCHA83	10.000	REFB	30.4400	IN.
△	2.000	CHLAFR	0.000	RUDDER	0.000					XHRP	45.2700	IN.
	4.000									YHRP	0.0000	IN.
	6.000	DATA HIST. CODE		HVVTI#CS#EM						ZHRP	0.5890	IN.
										SCALE	0.0175	



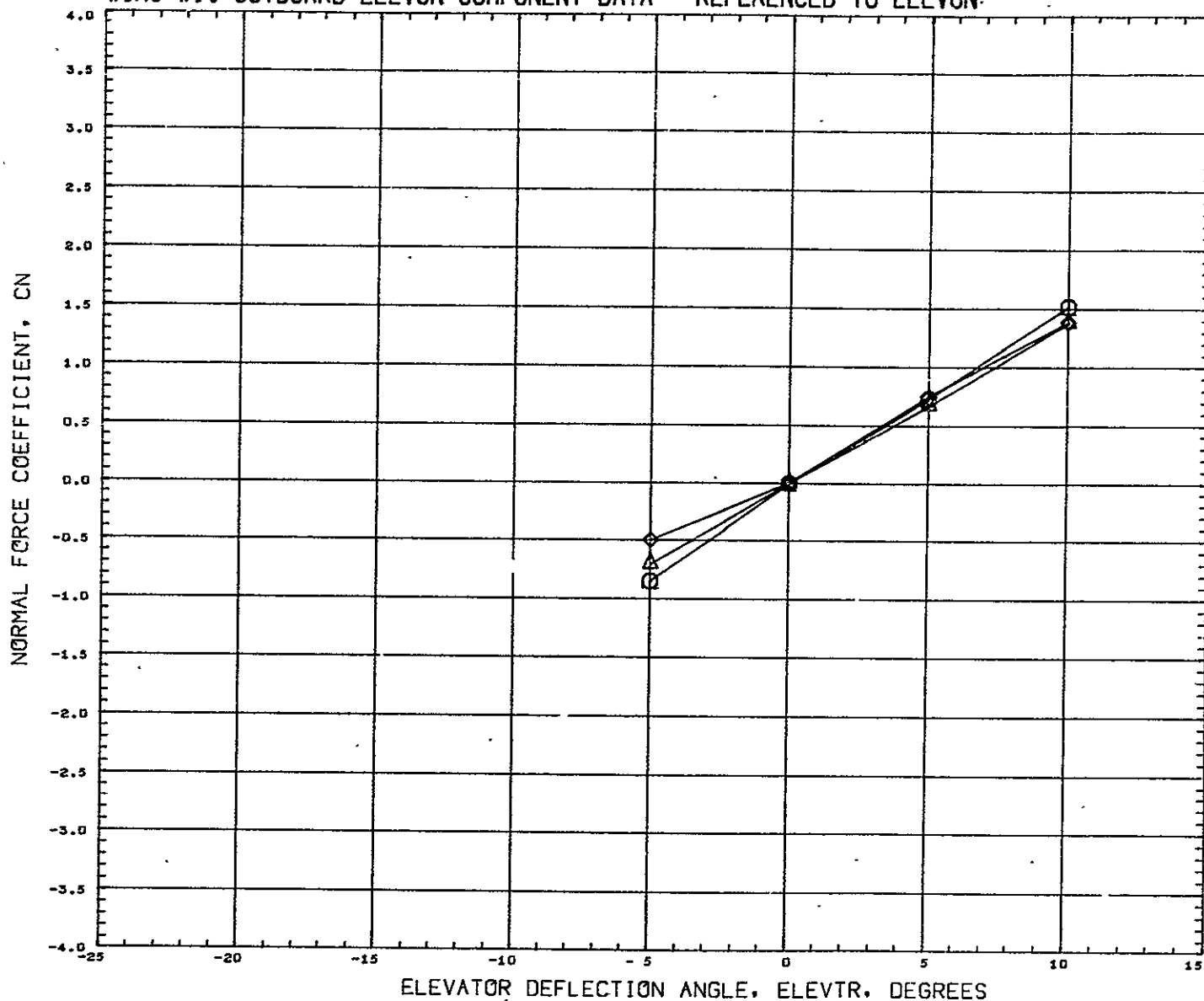
# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON



ELEVATOR DEFLECTION ANGLE, ELEVTR, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	8.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	12.1170	SQ. IN
△	10.000	AILRON	0.000	CANARD	1.000	UCHA84	- 5.000	UCHA81	0.000	REFL	1.8400	IN.
◇	12.000	CANVTR	0.000	CANRON	0.000	UCHA22	5.000	UCHA83	10.000	REFB	30.4400	IN.
□	14.000	CFLAPR	0.000	RUDDER	0.000					XHRP	45.2700	IN.
▽	16.000									YHRP	0.0000	IN.
◇	18.000									ZHRP	0.5890	IN.
		DATA HIST. CODE		MVVTI#CS#EH						SCALE	0.0175	

# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON



ELEVATOR DEFLECTION ANGLE, ELEVTR, DEGREES

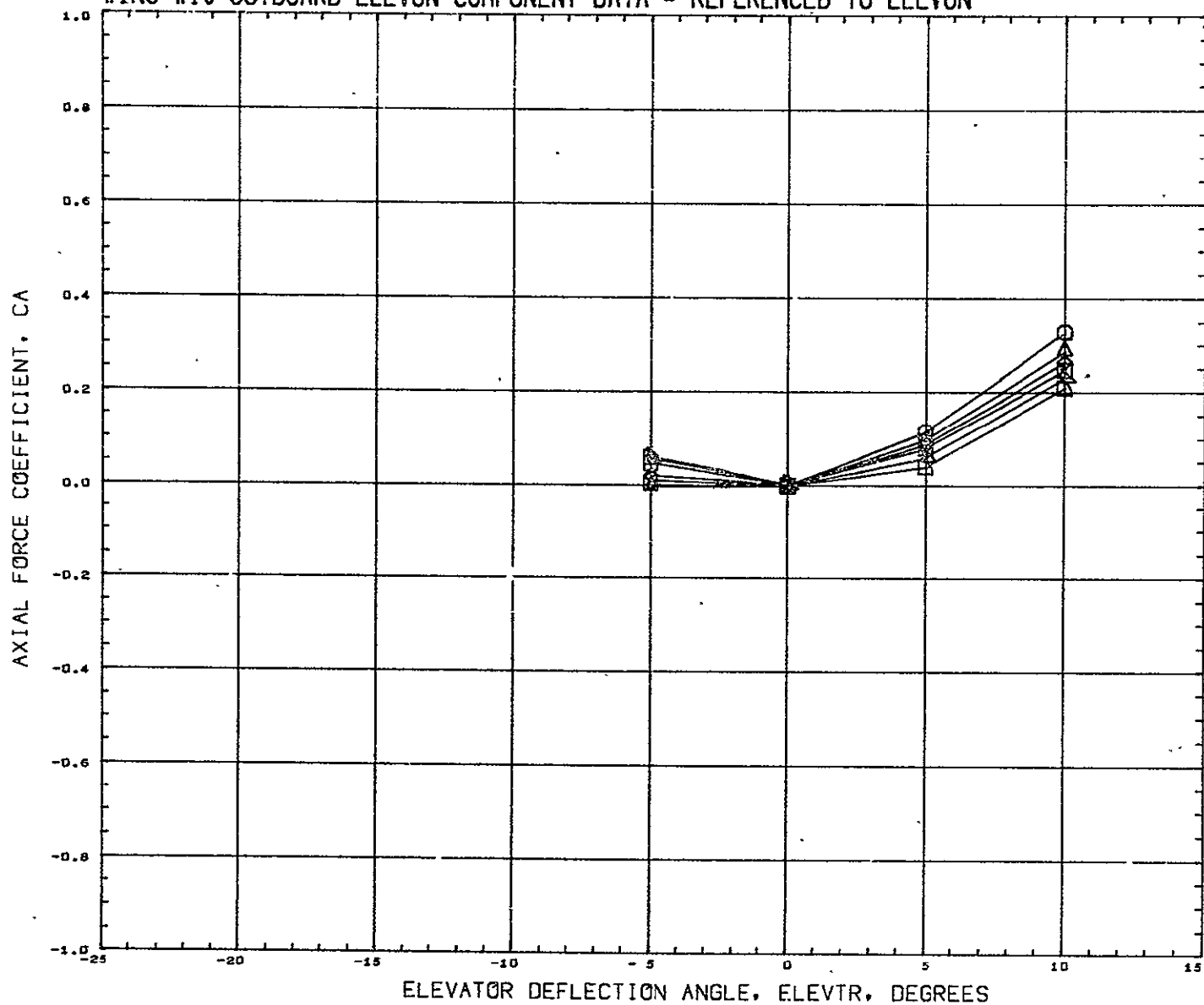
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	<u>BETA</u>	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	12.1170	SQ. IN
△	22.000	AILRON	0.000	CANARD	1.000	UCMA84	- 5.000	UCMA81	0.000	REFL	1.8400	IN.
◇	24.000	CANVTR	0.000	CANRON	0.000	UCMA82	5.000	UCMA83	10.000	REFB	30.4400	IN.
		CFLAPR	0.000	RUDDER	0.000					XHRF	45.2700	IN.
										YHRF	0.0000	IN.
										ZHRF	0.5890	IN.
										SCALE	0.0175	
		DATA HIST. CODE	MVVTI@CS*EM									

DATA HIST. CODE MVVTI\*CS\*EM

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# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON

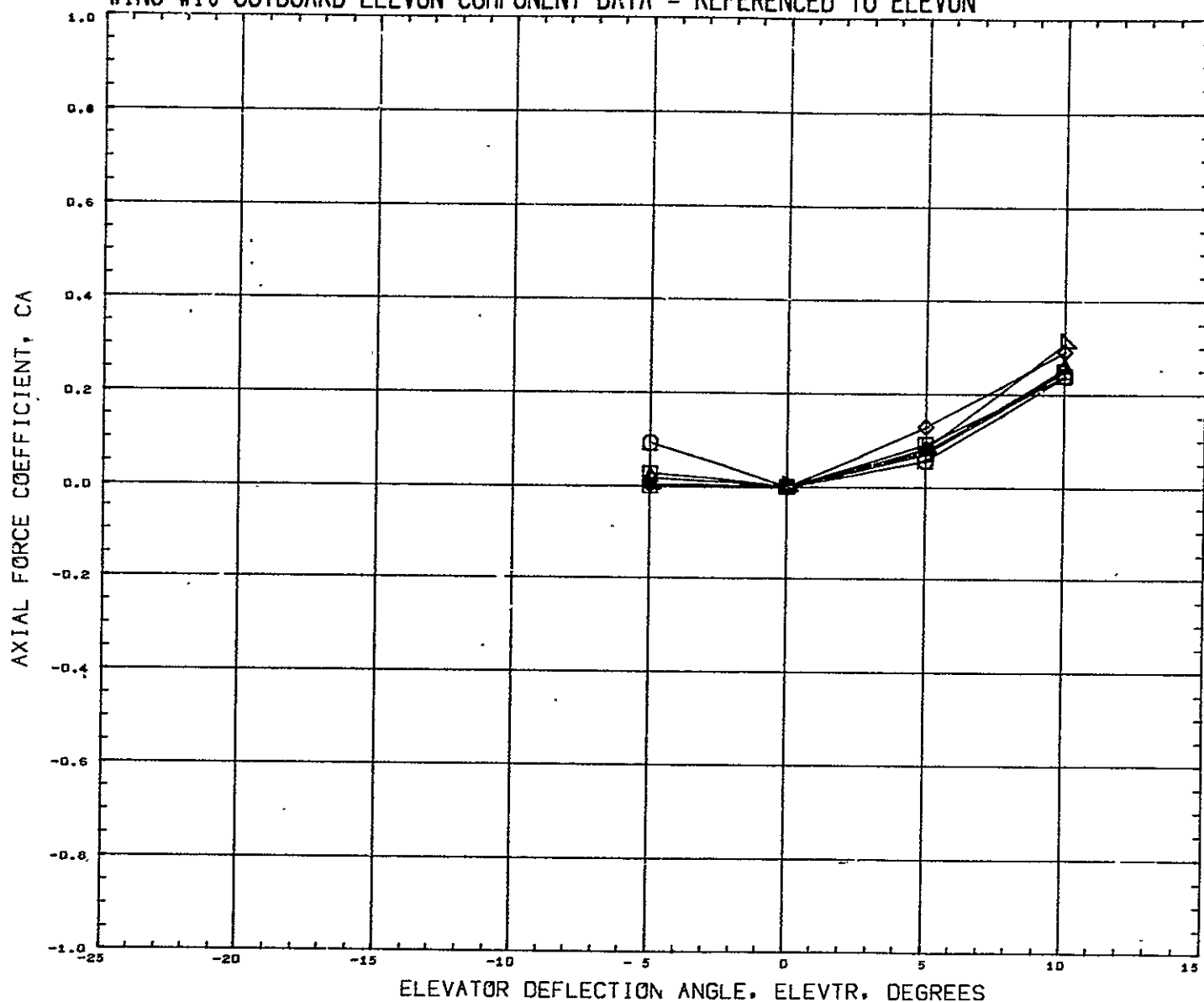


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	4.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	REFS	12.1170	SQ. IN
◇	2.000	AILRON	0.000	CANARD	1.000	UCHA84	5.000	UCHA81	REFL	1.8400	IN.
◇	0.000	CANVTR	0.000	CANCON	0.000	UCHA82	5.000	UCHA83	REFB	30.4400	IN.
◇	2.000	CFLAFR	0.000	RUDDER	0.000				XMRP	45.2700	IN.
◇	4.000								YMRP	0.0000	IN.
◇	6.000	DATA HIST. CODE	MYVTI#CS#EH						ZMRP	0.5890	IN.
									SCALE	0.0175	

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# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON

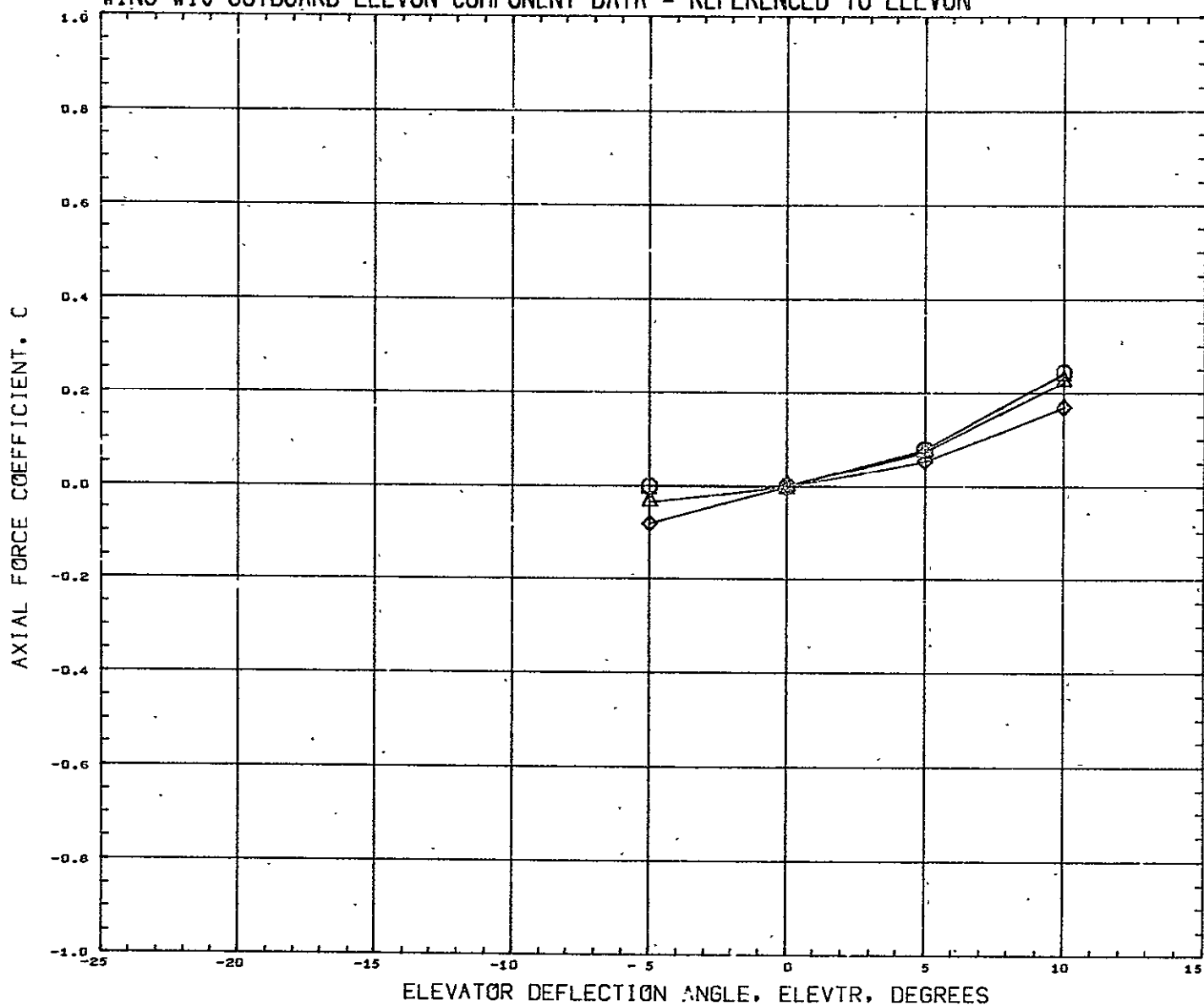


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	8.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	12.1170	SQ. IN
◇	10.000	AILRON	0.000	CANARD	1.000	UCHA84	- 5.000	UCHA81	0.000	REFL	1.8400	IN.
◇	12.000	CANVTR	0.000	CANRON	0.000	UCHA82	5.000	UCHA83	10.000	REFB	30.4400	IN.
◇	14.000	CFLAPR	0.000	RUDDER	0.000					XMRP	45.2700	IN.
◇	16.000									YMRP	0.0000	IN.
◇	18.000									ZMRP	0.5390	IN.
										SCALE	0.0175	
		DATA HIST. CODE	MVVTI*CS*EM									

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# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON



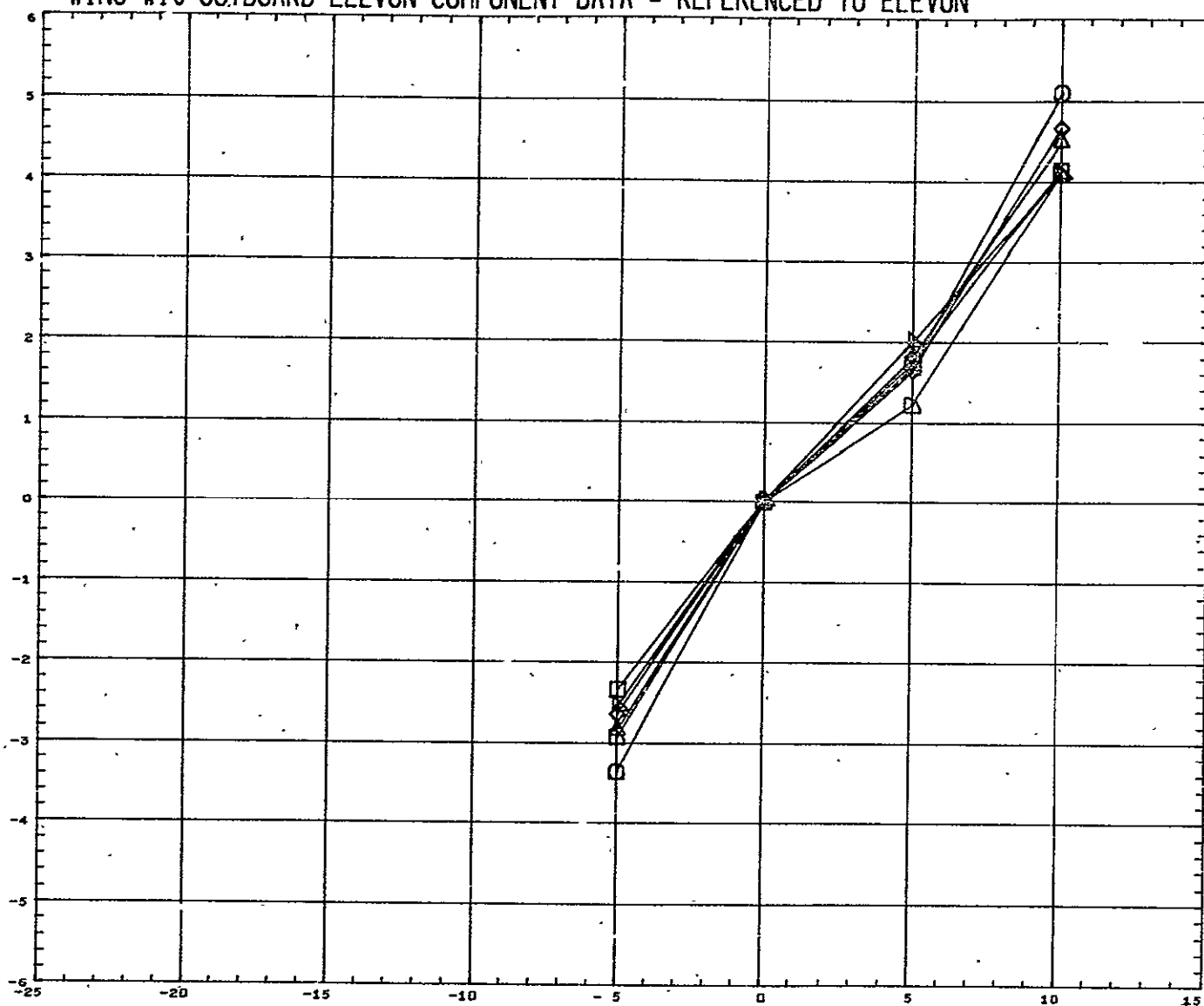
SYMBOL	ALPHA	BETA	PARAMETRIC VALUES			DATA SOURCE			REFERENCE INFORMATION			
○	20.000		Q	0.000	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	12.1170	SQ. IN
△	22.000	AILRON	CANARD	0.000	1.000	UCHA84	5.000	UCHA81	0.000	REFL	1.8400	IN.
◇	24.000	CANVIR	CANON	0.000	0.000	UCHA82	5.000	UCHA83	10.000	REFB	30.4400	IN.
		CFLAPR	RUDDER	0.000	0.000					XMRP	45.2700	IN.
										YMRP	0.0000	IN.
										ZMRP	0.5890	IN.
										SCALE	0.0175	

DATA HIST. CODE MVVTI#CS#E11

GDLST 587-0 B19W10-9V7C7(P0S.1)

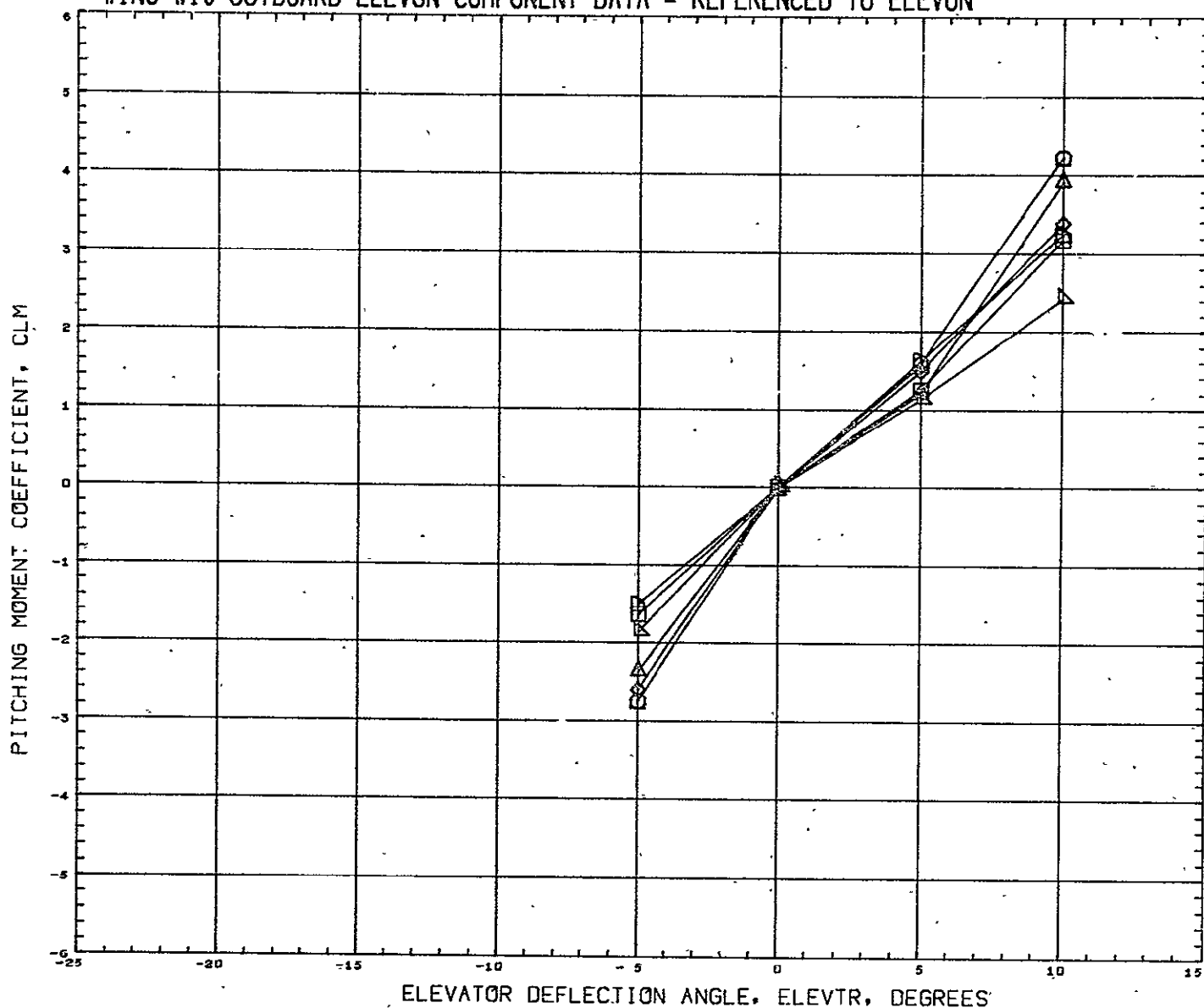
(UCHA84) 21 AUG 71 PAGE 217

PITCHING MOMENT COEFFICIENT, CLM



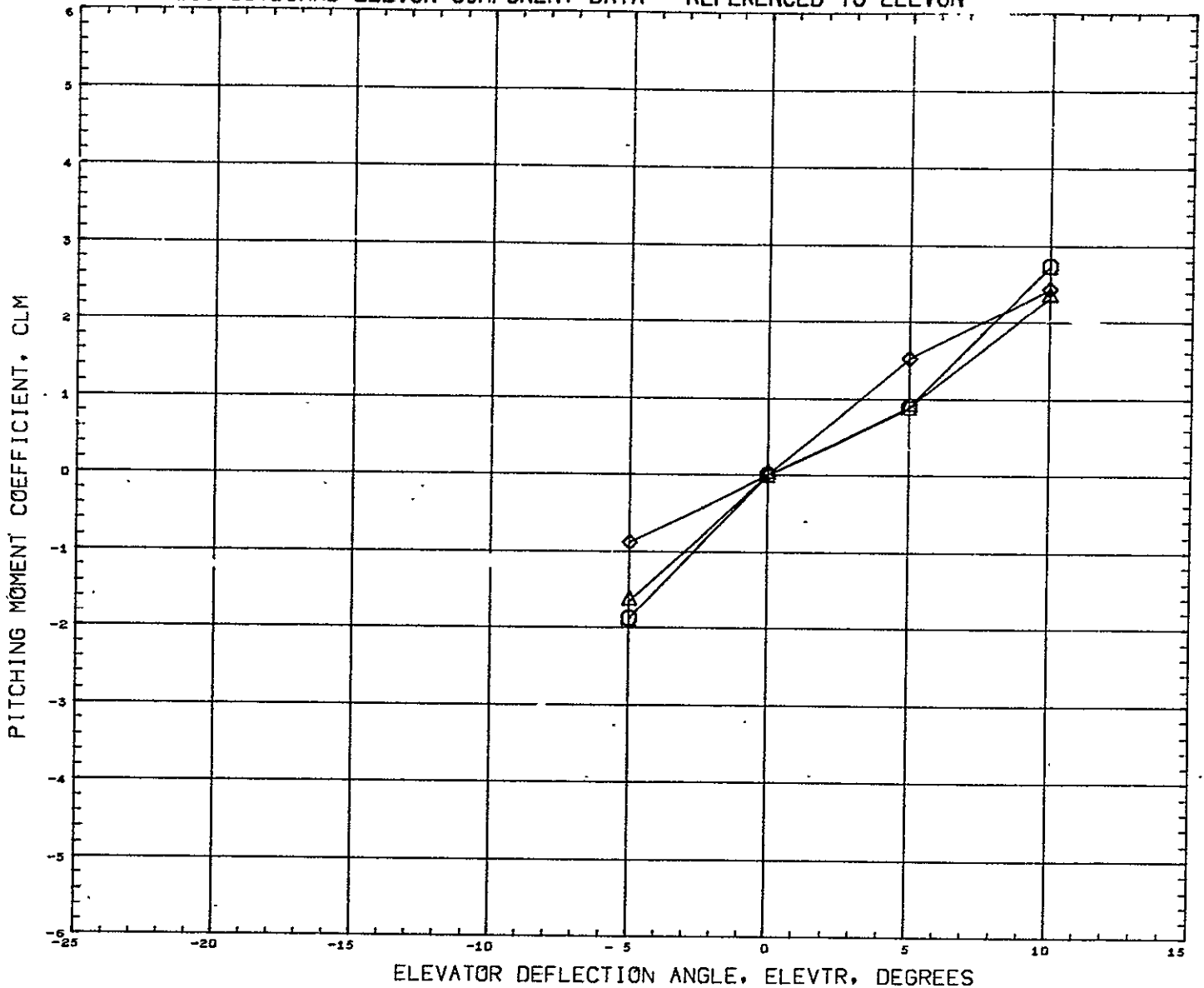
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
-	4.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEV	REFS	12.1170	SQ. IN
-	2.000	AILRON	0.000	CANARD	1.000	UCHA84	5.000	UCHA81	0.000	REFL	1.8400	IN.
	0.000	CANVTR	0.000	CANRON	0.000	UCHA82	5.000	UCHA82	10.000	REFB	30.4400	IN.
	2.000	CFLAFR	0.000	RUDDER	0.000					ZHRP	45.2700	IN.
	4.000									ZHRP	0.0000	IN.
	6.000									ZHRP	0.5890	IN.
		DATA HIST. CODE	MVVTI*CS*EM							SCALE	0.0175	

# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	8.000	<u>BETA</u>	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	12.1170	SQ. IN
□	10.000	AILRON	0.000	CANARD	1.000	UCHA84	5.000	UCHA81	0.000	REFL	1.8400	IN.
△	12.000	CANVTR	0.000	CANRON	0.000	UCHA82	5.000	UCHA83	10.000	REFB	30.4400	IN.
◇	14.000	CFLAFR	0.000	RUDDER	0.000					XMRP	45.2700	IN.
×	16.000									YMRP	0.0000	IN.
	16.000									ZMRP	0.5890	IN.
	16.000	DATA HIST. CODE	HVVTI*CS*EH									
										SCALE	0.0175	

# WING W10 OUTBOARD ELEVON COMPONENT DATA - REFERENCED TO ELEVON



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	12.1170	SQ. IN
△	22.000	AILRON	0.000	CANARD	1.000	UCHA84	- 5.000	UCHA81	0.000	REPL	1.8400	IN.
◇	24.000	CANVTR	0.000	CANRON	0.000	UCHA82	5.000	UCHA83	10.000	REFB	30.4400	IN.
		CFLAPR	0.000	RUDDER	0.000					XHRF	45.2700	IN.
										YHRF	0.0000	IN.
										ZHRF	5.5890	IN.
										SCALE	0.0175	

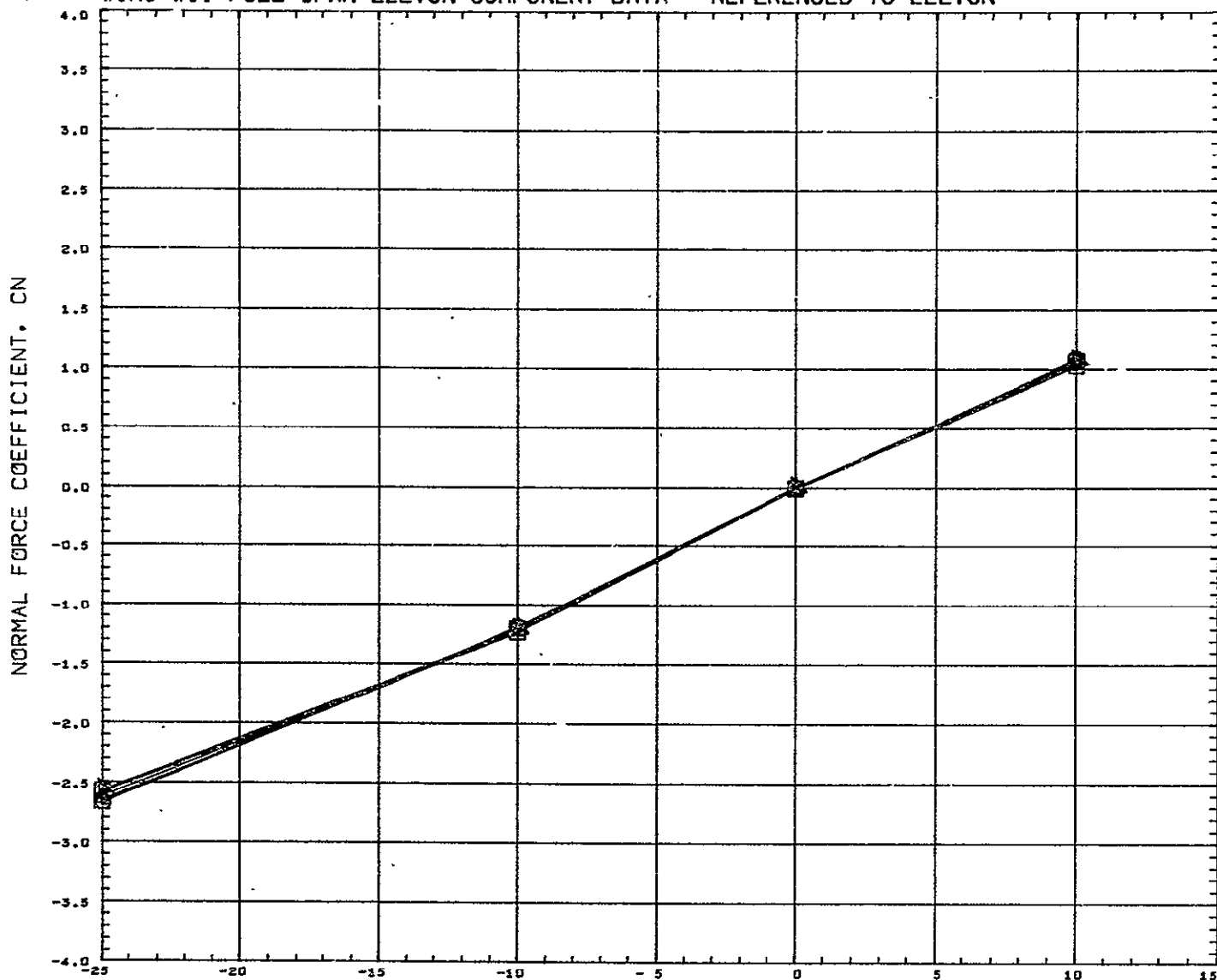
DATA HIST. CCDE MVVTI\*CS\*EM

GDLST 587-0 B19W10-9V7C7(P0S.1)

(UCHA84) 21 AUG 71 PAGE 220



# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON



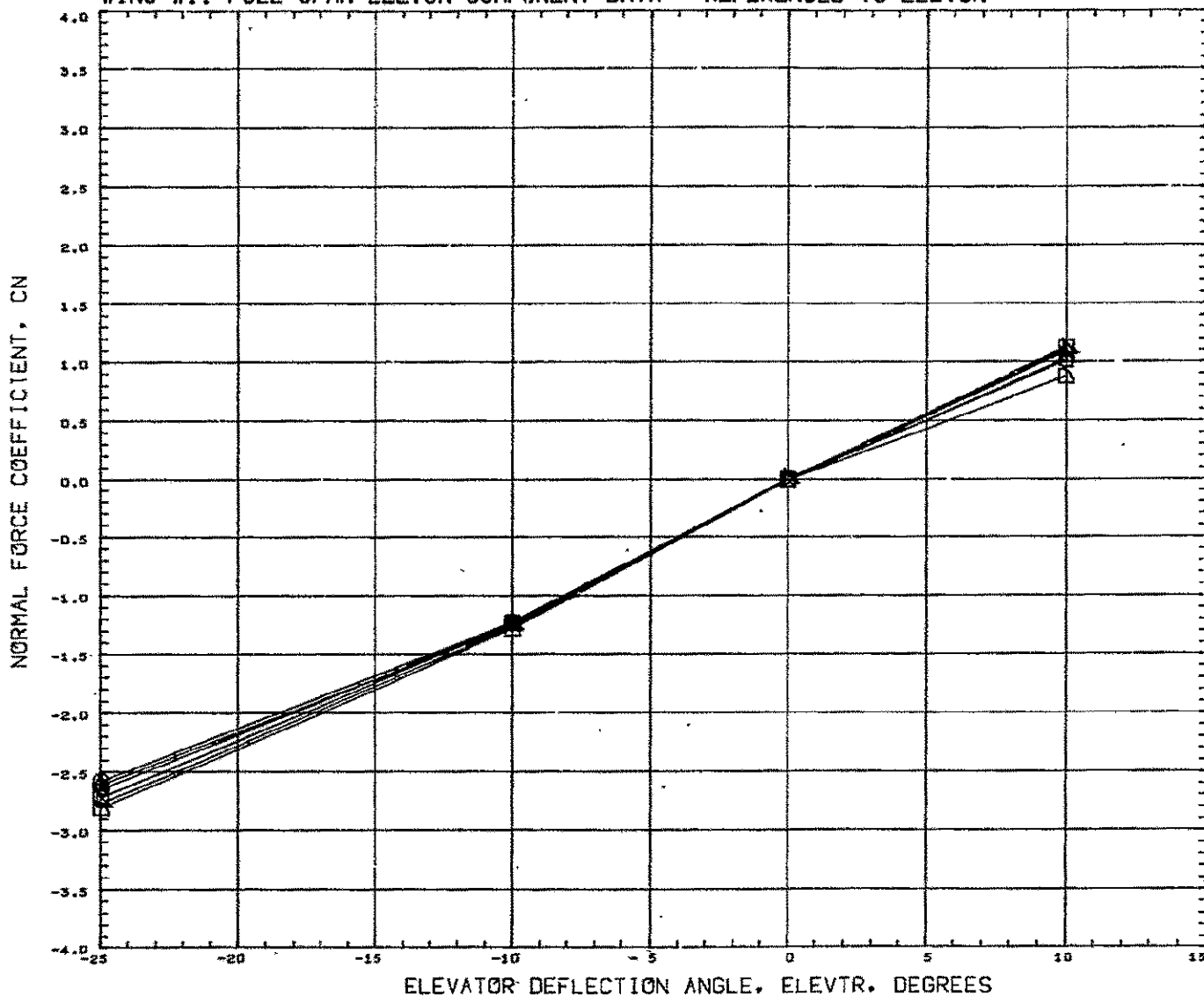
ELEVATOR DEFLECTION ANGLE, ELEVTR, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	4.000	<u>BETA</u>	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	67.1850	SQ. IN
△	2.000	AILRON	0.000	RUDDER	0.000	UCHC09	- 25.000	UCHC10	- 10.000	REFL	3.1920	IN.
◇	0.000					UCHC05	0.000	UCHC11	10.000	REFB	28.9800	IN.
◻	2.000									XMRP	45.2670	IN.
◼	4.000									YMRP	0.0000	IN.
◻	6.000	DATA HIST. CODE	MVVTI#CS#EM							ZMRP	0.5180	IN.
										SCALE	0.0175	

GDLST 587-0 B19W11-1V7

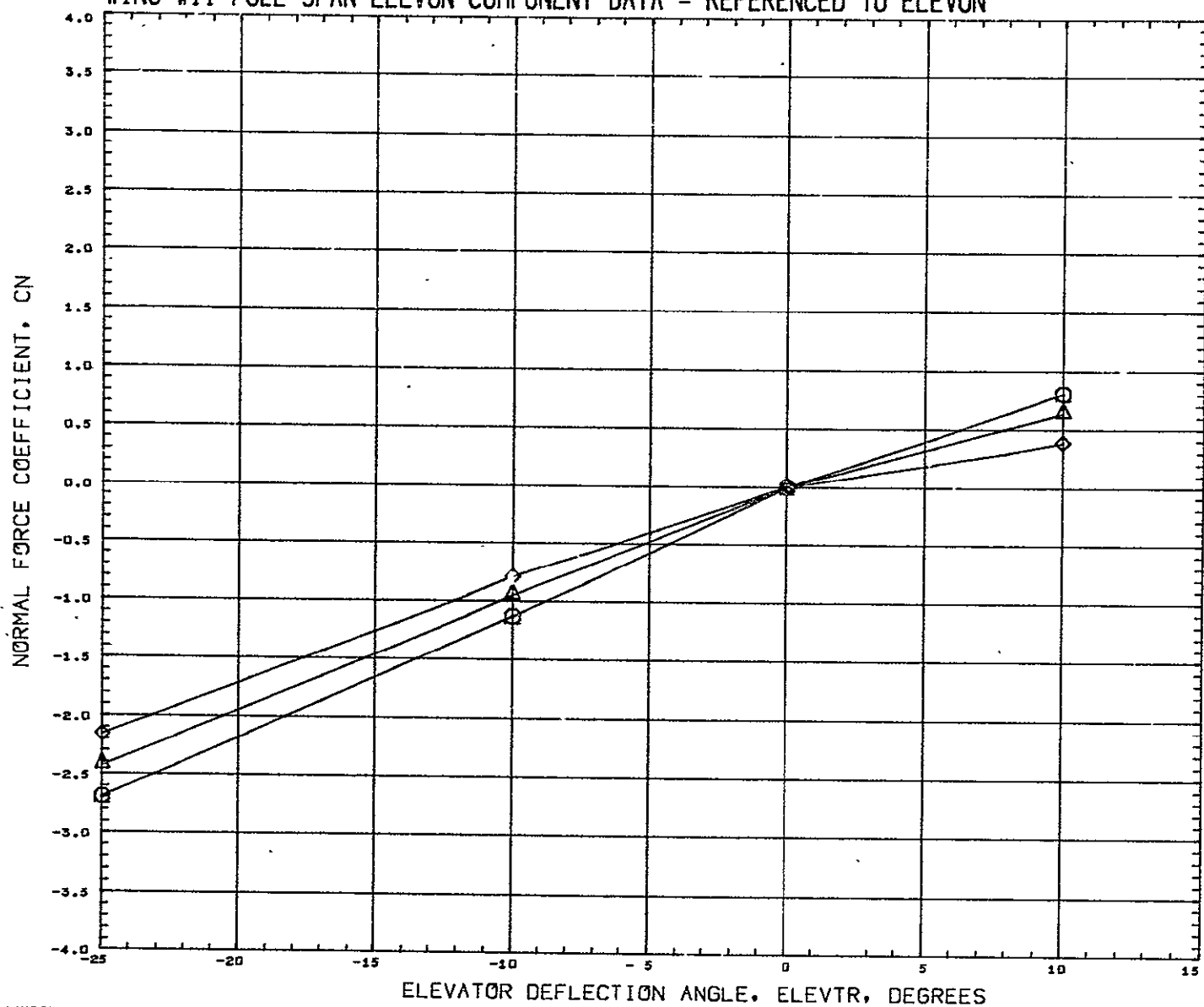
(UCMC09) 21 AUG 71 PAGE 221

# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON



ELEVATOR DEFLECTION ANGLE, ELEVTR, DEGREES									
SYMBOL	ALPHA	BETA	PARAMETRIC VALUES		DATA SOURCE		REFERENCE INFORMATION		
○	8.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	REFS	67.1850
◇	10.000	AILRON	0.000	RUDDER	0.000	UCHC09	- 25.000	REFL	3.1920
□	12.000					UCHC05	0.000	REFD	28.9800
△	14.000							YMRP	45.2670
▽	16.000							ZMRP	0.0000
◇	18.000							ZMRP	0.5180
		DATA HIST. CODE	HVVTT*CS+EH					SCALE	0.0175

# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON



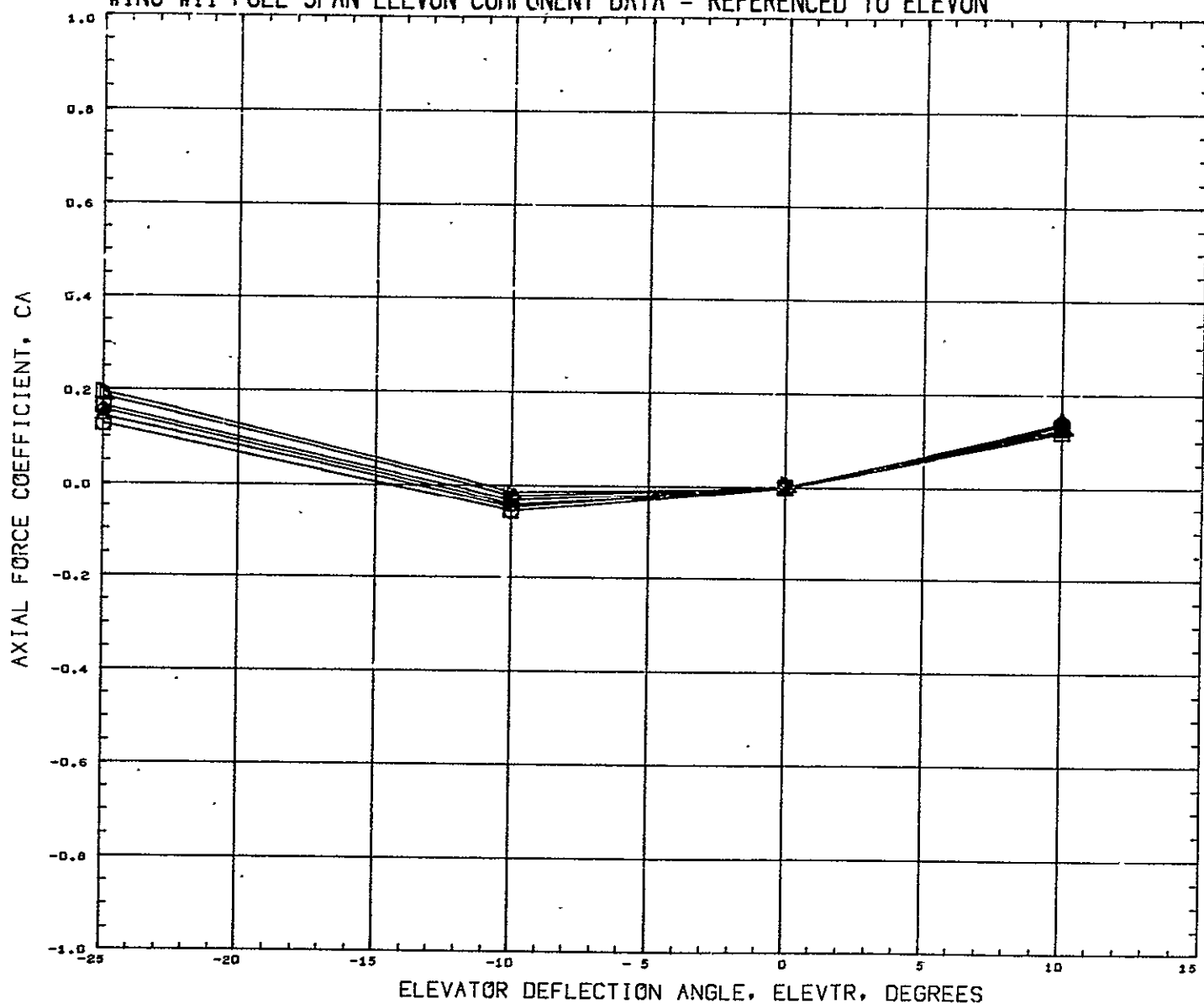
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	67.1850	SQ. IN
△	22.000	AILRON	0.000	RUDDER	0.000	UCMC09	- 25.000	UCMC10	- 10.000	RLFL	3.1920	IN.
◇	24.000					UCMC05	0.000	UCMC11	10.000	REFB	28.9800	IN.
										XMRP	45.2670	IN.
										YMRP	0.0000	IN.
										ZMRP	0.5180	IN.
										SCALE	0.0175	

DATA HIST. CODE MVVTI#CS#LM

GDLST 587-0 B19W11-1V7

(UCMC09) 21 AUG 71 PAGE 223

# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON

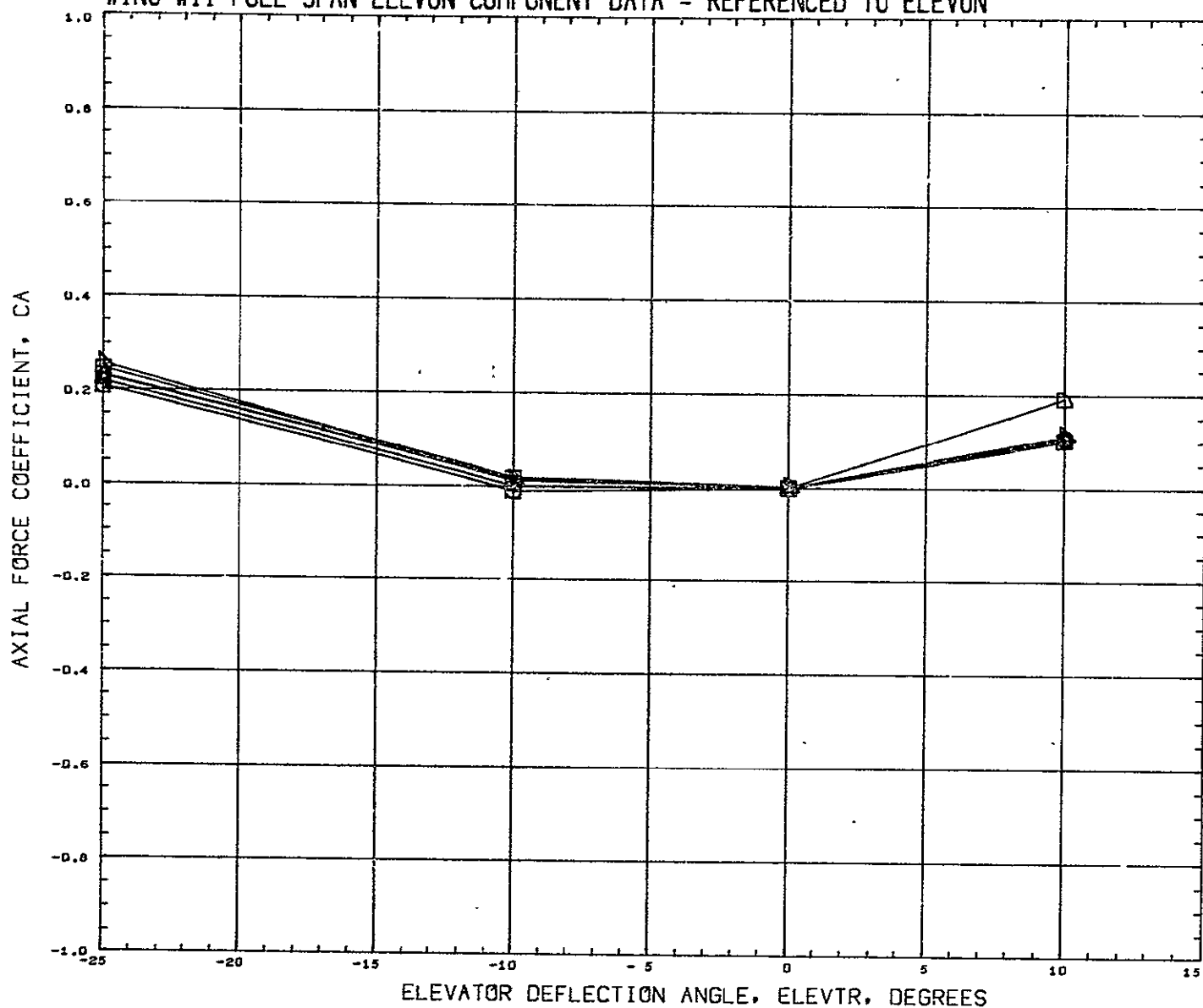


PARAMETRIC VALUES		DATA SOURCE				REFERENCE INFORMATION					
ALPHA	BETA	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	67.1850	SQ. IN	
- 4.000	2.000	0.000	0.000	UCMC09	- 25.000	UCMC10	- 10.000	REFL	3.1920	IN.	
- 2.000	AILRON	0.000	RUDDER	0.000	UCMC05	0.000	UCMC11	10.000	REFB	20.9800	IN.
0.000								XMRP	45.2670	IN.	
2.000								YMRP	0.0000	IN.	
4.000								ZMRP	0.5180	IN.	
0.000	DATA HIST. CODE	MVVTI*CS*EH									
								SCALE	0.0175		

GDLST 587-0 B19W11-1V7

(UCMC09) 21 AUG 71 PAGE 224

# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON

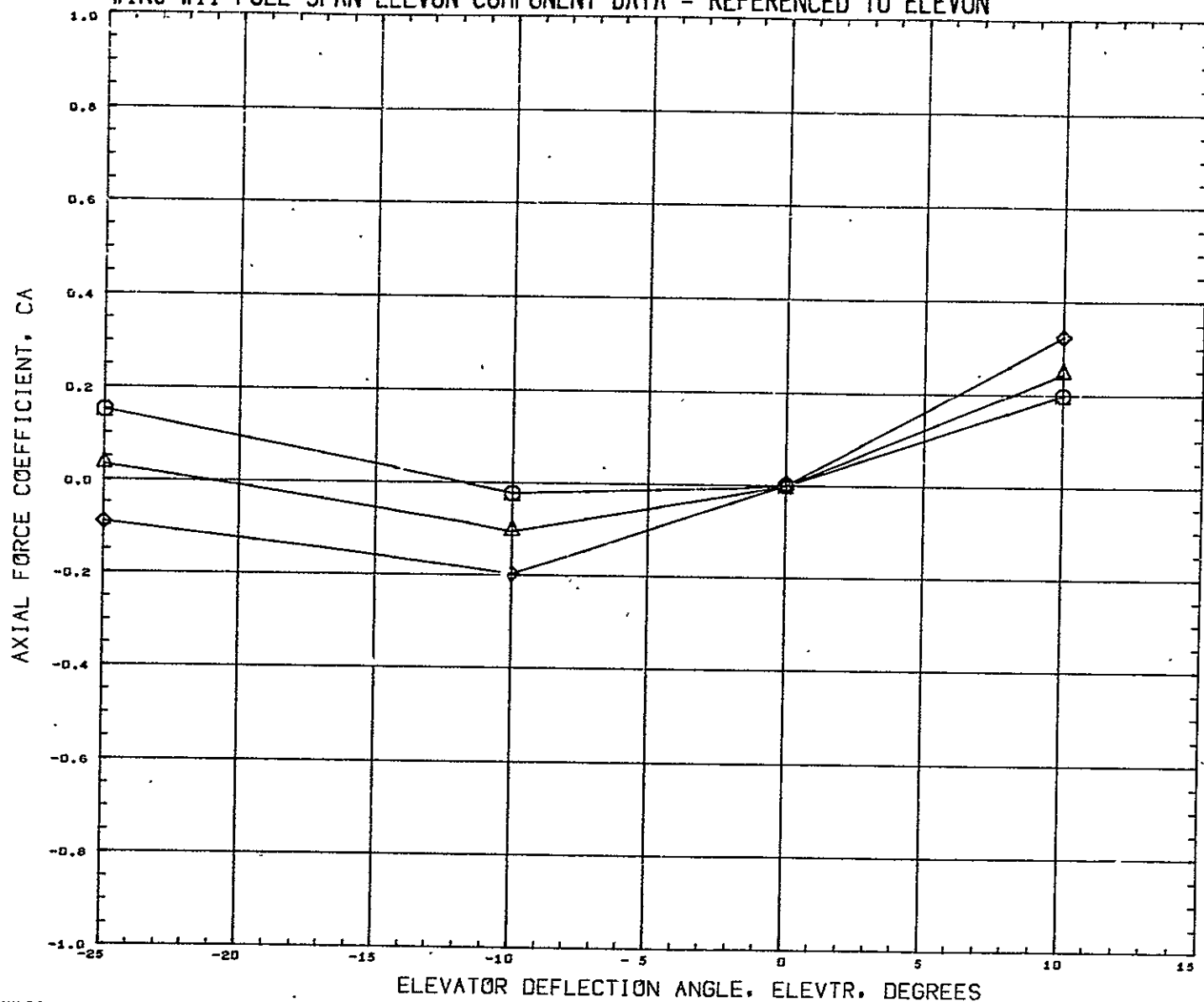


WING DEFLECTION ANGLE ELEVTR DEGREES												
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	8.000	<u>BETA</u>	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	67.1850	SQ. IN
◇	10.000	AILRON	0.000	RUDDER	0.000	UCHC09	- 25.000	UCHC10	- 10.000	REFL	3.1920	IN.
◇	12.000					UCHC05	0.000	UCHC11	10.000	REFB	28.9800	IN.
◇	14.000									XMRP	45.2670	IN.
◇	16.000									YMRP	0.0000	IN.
◇	18.000									ZMRP	0.5180	IN.
		DATA HIST. CODE	MVVTI#CS#EN							SCALE	0.0175	

GDLST 587-0 B19W11-1V7

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# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON



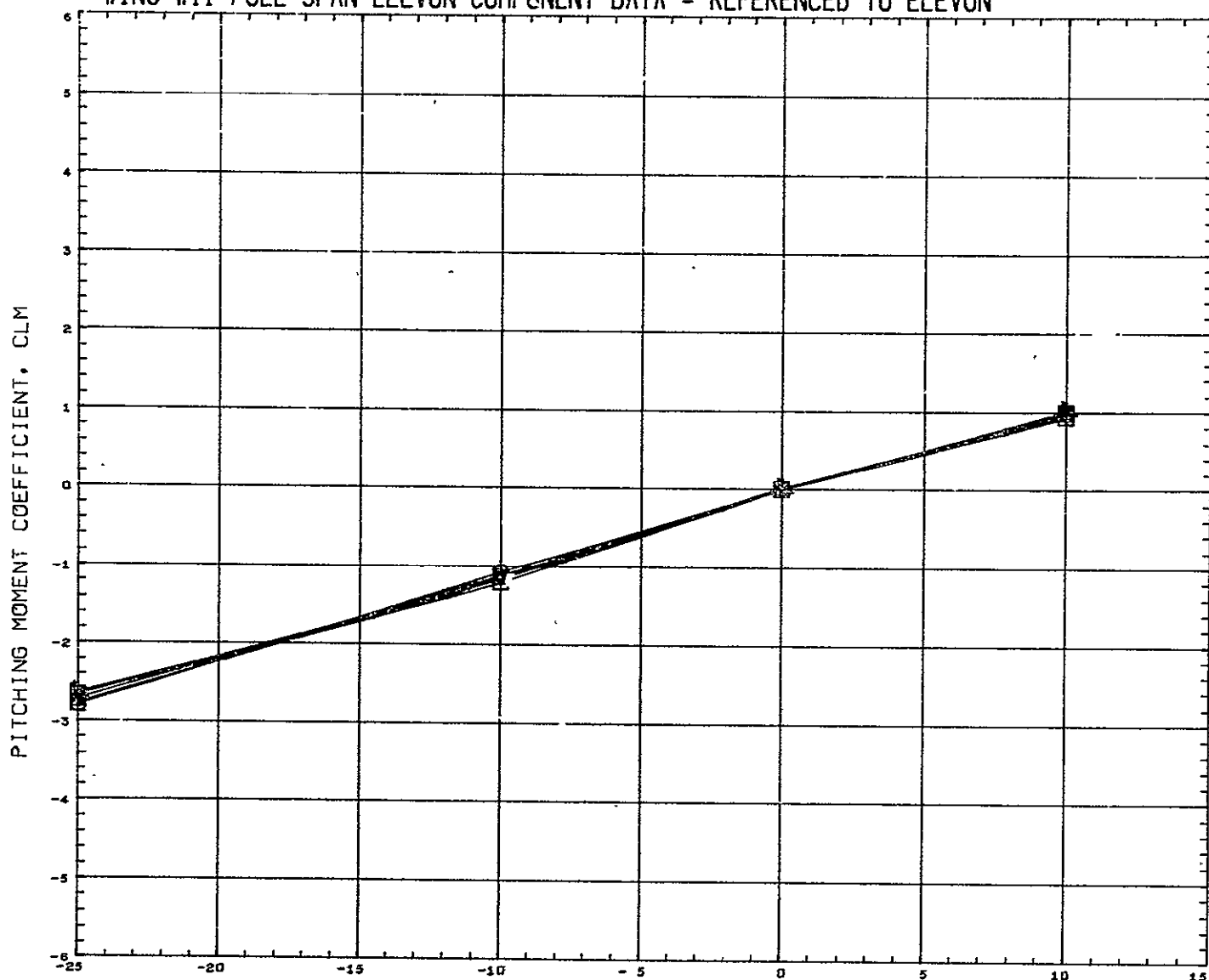
ELEVATION DEFLECTION ANGLE, ELEVTR, DEGREES												
SYMSCL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	67.1850	SQ. IN
△	22.000	AILRON	0.000	RUDDER	0.000	UCMC09	- 25.000	UCMC10	- 10.000	REFL	3.1920	IN.
◇	24.000					UCMC05	0.000	UCMC11	- 10.000	REFB	28.9000	IN.
										XMRP	45.2570	IN.
										YMRP	0.0000	IN.
										ZMRP	0.5180	IN.
										SCALE	0.0175	
		DATA HIST. CODE		MVVTI*CS*EM								

DATA HIST. CODE MVVTI\*CS\*EM

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(UCMC09) 21 AUG 71 PAGE 226

# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON



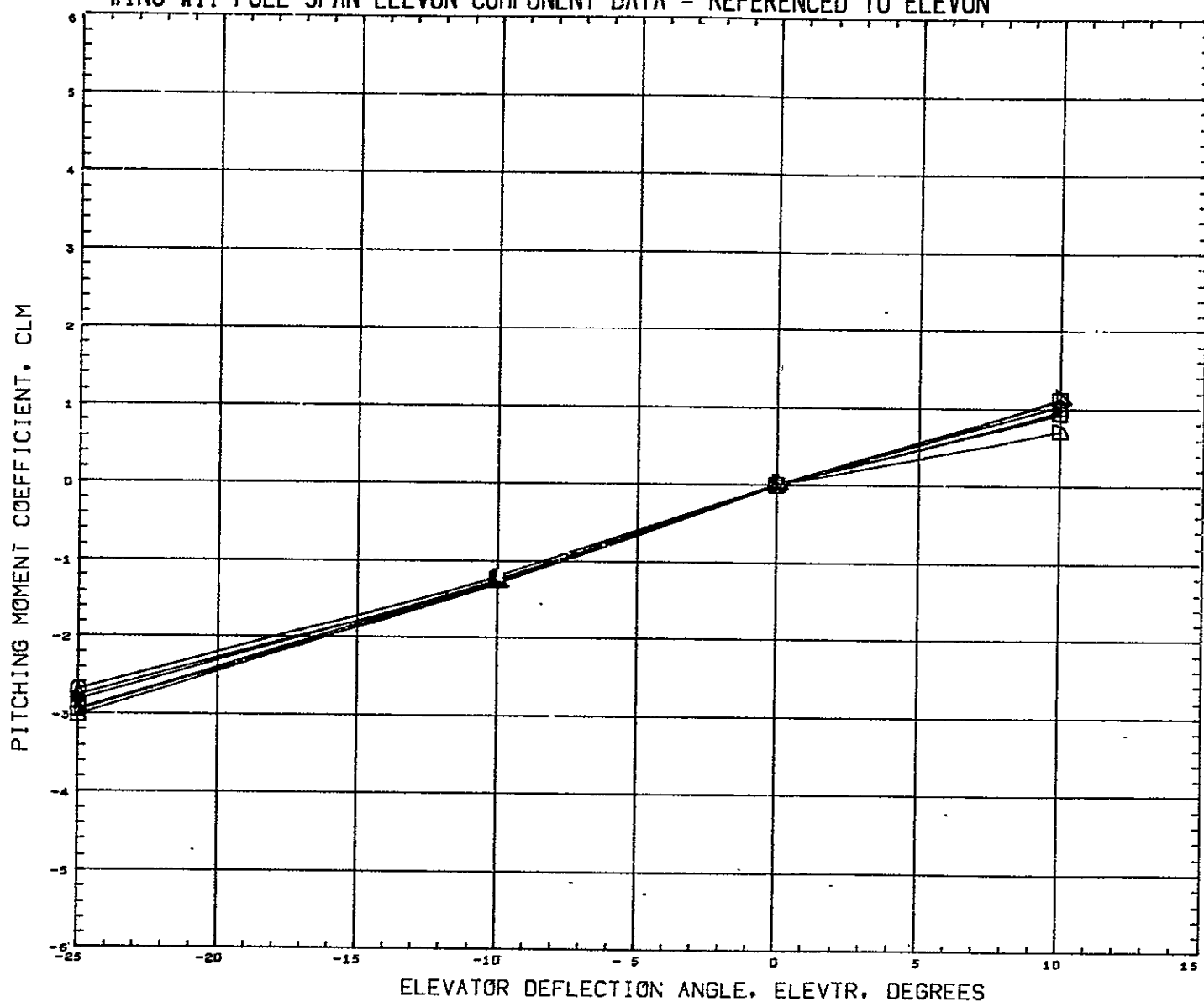
ELEVATOR DEFLECTION ANGLE, ELEVTR, DEGREES

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	4.000	BETA	0.000	Q	60.000	DATASET	ELEVTR	DATASET	ELEVTR	REFS	67.1850	SQ. IN
◇	2.000	AILRON	0.000	RUDDER	0.000	UCHC09	- 25.000	UCHC10	- 10.000	REFL	3.1920	IN.
△	0.000					UCHC05	0.000	UCHC11	10.000	REFB	28.9800	IN.
□	2.000									XMRP	45.2670	IN.
◇	4.000									YMRP	0.0000	IN.
△	6.000									ZMRP	0.5180	IN.
□		DATA HIST. CODE	MVVTI*CS*EN							SCALE	0.0175	

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# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON



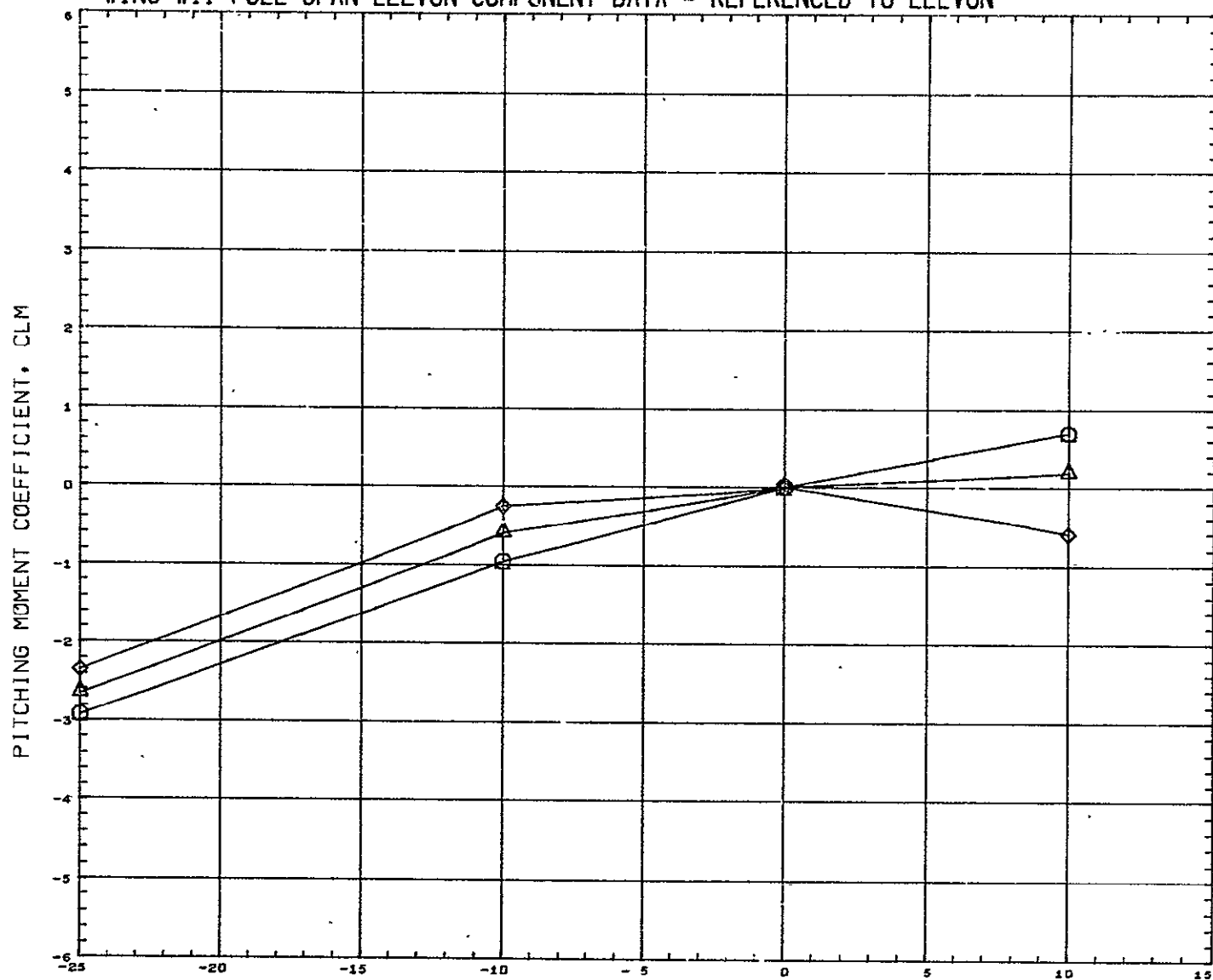
PARAMETER	ALPHA	BETA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
8.000	0.000	0.000	Q	60.000	UCMC09
10.000	0.000	0.000	RUDDER	0.000	UCMC10
12.000	0.000	0.000			UCMC11
14.000	0.000	0.000			UCMC95
16.000	0.000	0.000			
18.000	0.000	0.000			
DATA HIST. CODE					

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# WING W11 FULL SPAN ELEVON COMPONENT DATA - REFERENCED TO ELEVON



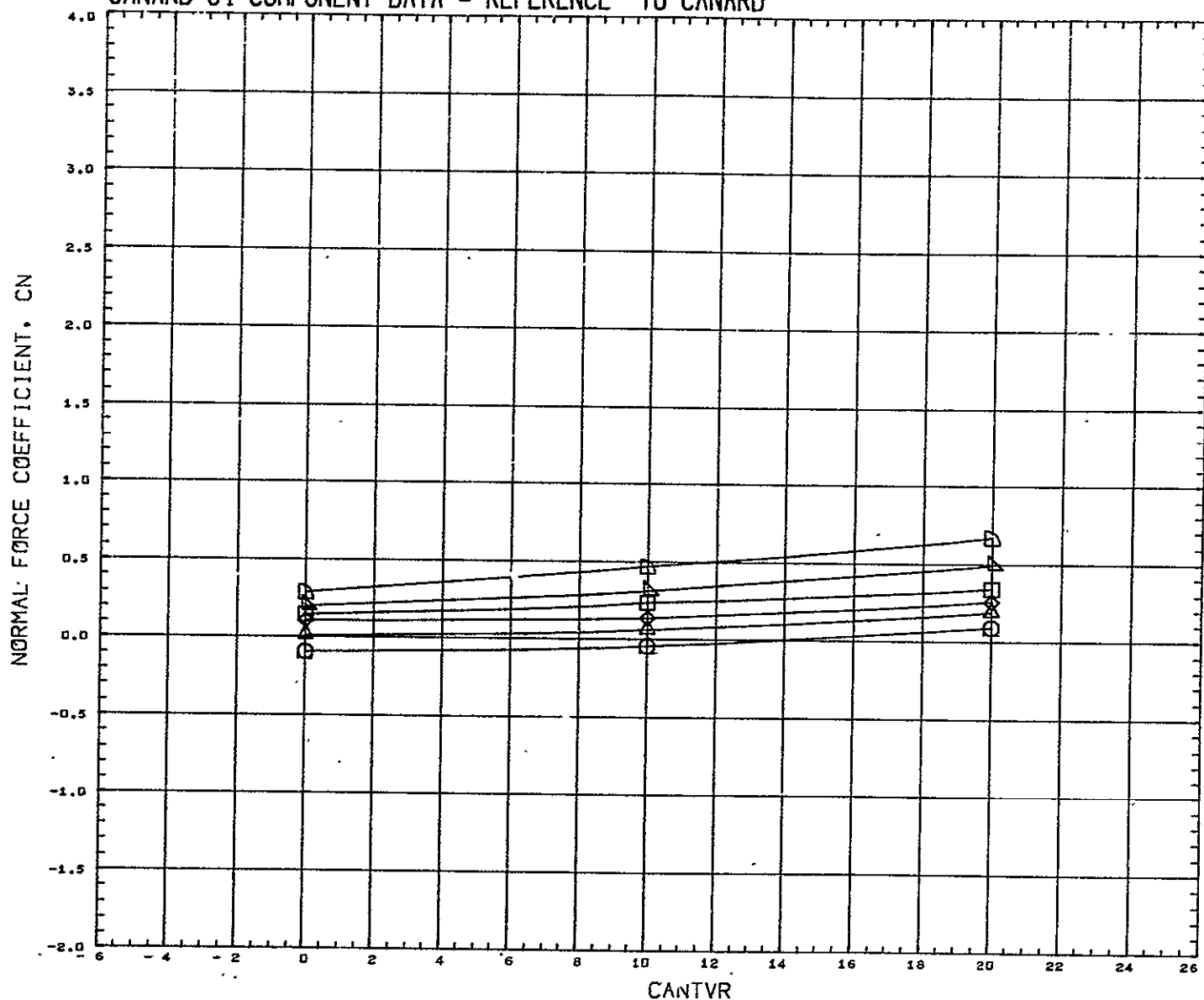
SYMBOL	ALPHA	BETA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	20.000	0.000	Q	60.000	REFS 67.1850 SQ. IN
△	22.000	0.000	AILRON	0.000	REFL 3.1920 IN.
◇	24.000	0.000	RUDDER	0.000	REFB 28.9800 IN.
					XMRP 45.2670 IN.
					YMRP 0.0000 IN.
					ZMRP 0.5100 IN.
					SCALE 0.0175

DATA HIST. CODE MVVTI\*CS\*EH

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# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD

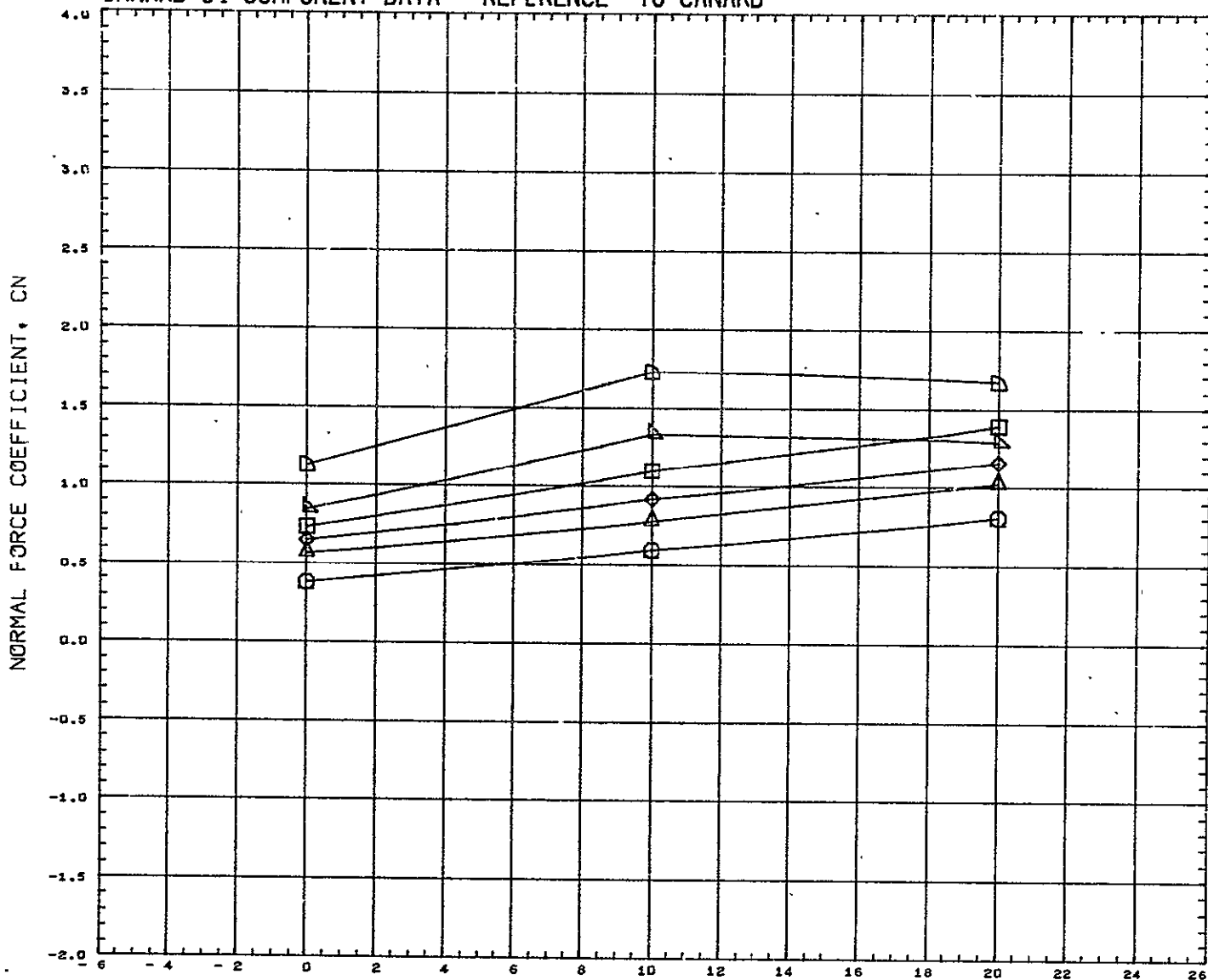


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	4.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	20.3040	SQ. IN
□	2.000	Q	60.000	ELEVTR	0.000	UCMA21	0.000	UCMA24	10.000	REFL	4.0160	IN.
○	0.000	AILRON	0.000	CANTVR	0.000	UCMA25	20.000			REFB	6.1580	IN.
△	2.000	CANCON	0.000	CFLAPR	0.000					XMRF	16.1220	IN.
+	4.000									YMRF	0.0000	IN.
x	6.000	DATA HIST. CODE	MVV*ATI*CSM							ZMRF	4.6130	IN.
										SCALE	0.0175	

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# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



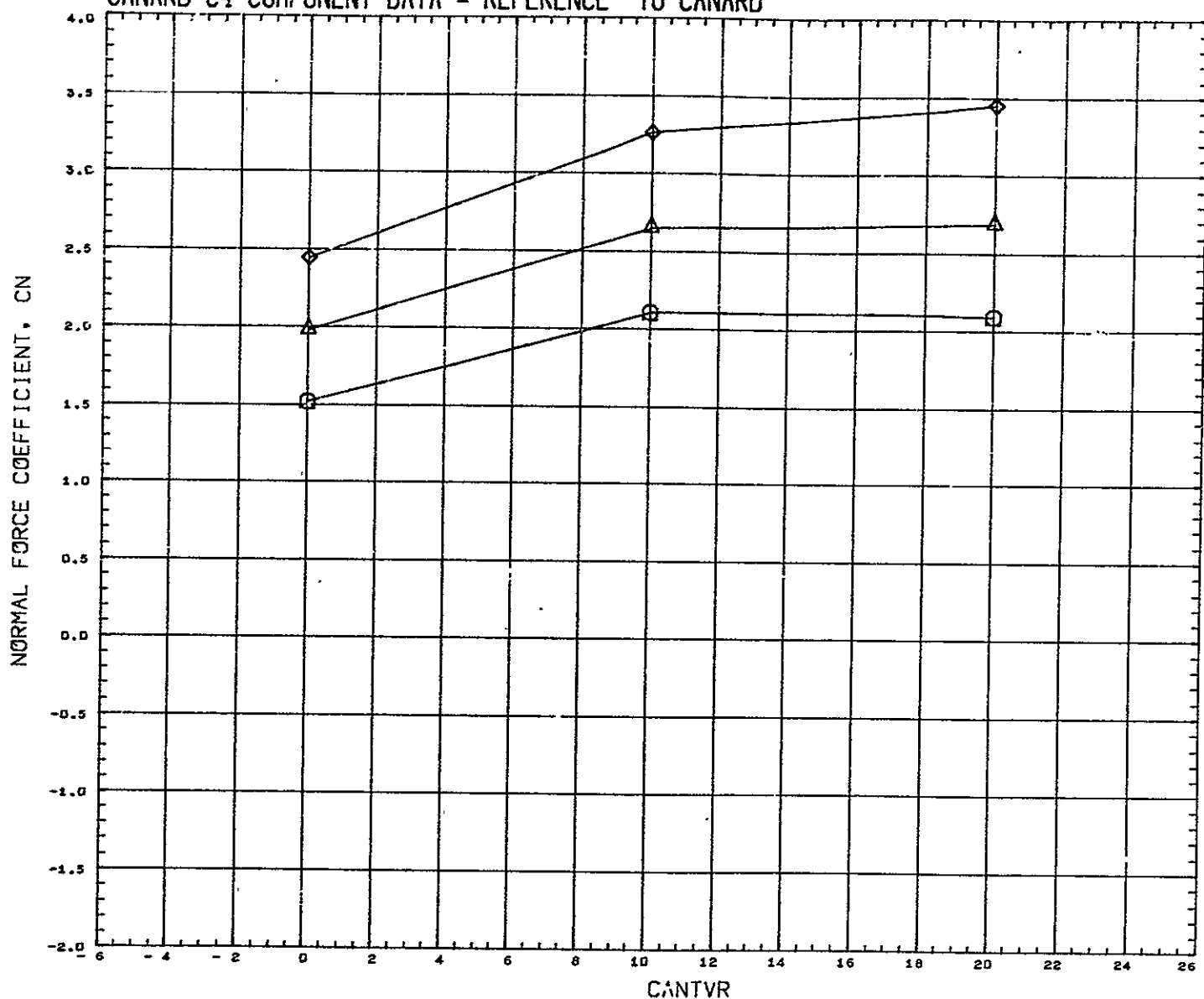
CANTVR

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	8.000	<u>CANARD</u>	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	20.3040	SQ. IN
◇	10.000	Q	60.000	ELEVTR	0.000	UCHA21	0.000	UCHA24	10.000	REFL	4.0160	IN.
◇	12.000	AILRON	0.000	CANTVR	0.000	UCHA25	20.000			REFB	6.1580	IN.
◇	14.000	CANRON	0.000	CFLAPR	0.000					XMRP	16.1220	IN.
◇	16.000									YMRP	0.0000	IN.
◇	18.000	DATA HIST. CODE	MVV*ATI*CSH							ZMRP	4.8130	IN.
										SCALE	0.0175	

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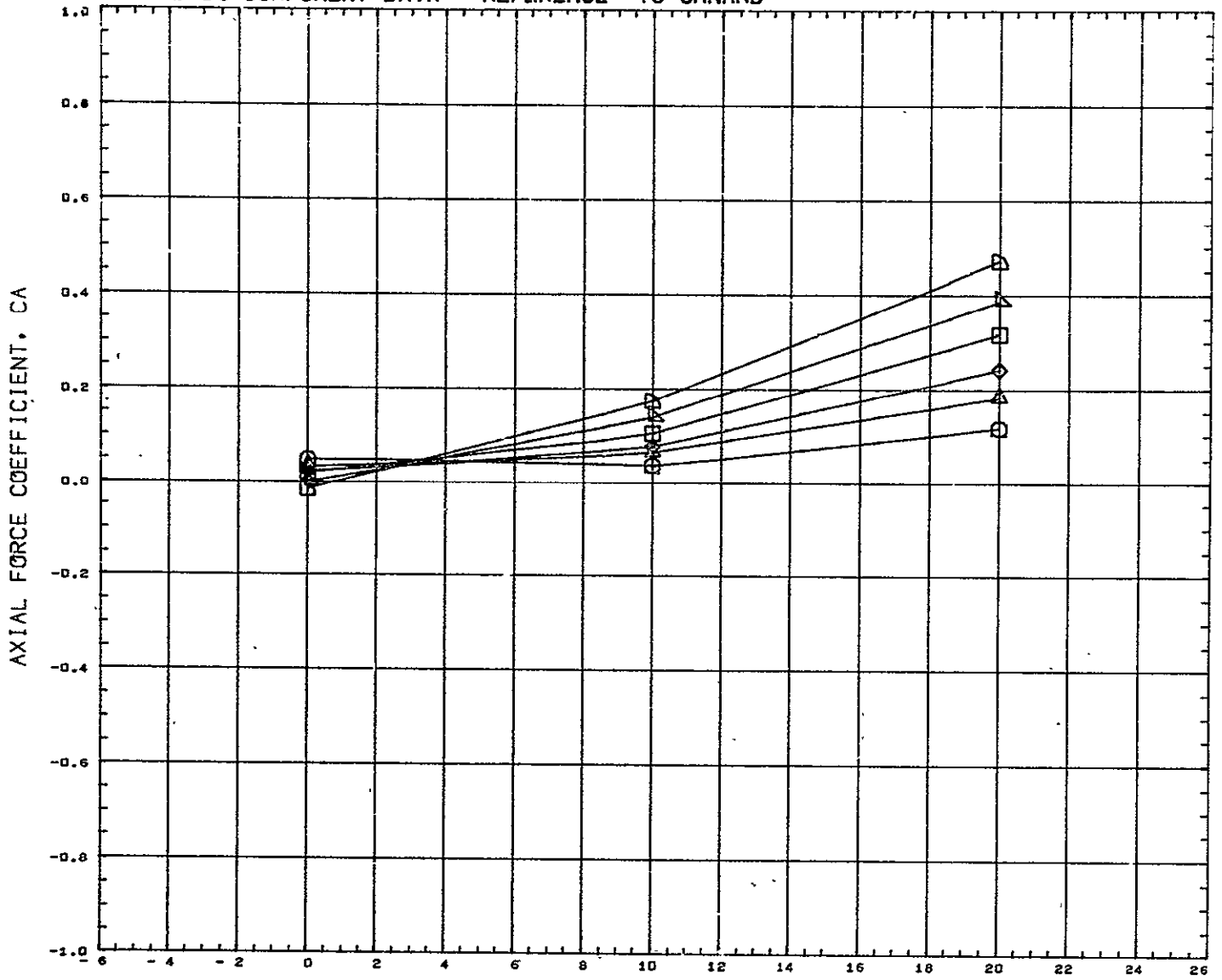
# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	20.3040	sq. IN
△	22.000	Q	60.000	ELEVTR	0.000	UCHA21	0.000	UCHA24	10.000	REFL	4.0160	IN.
◇	24.000	AILRON	0.000	CANVTR	0.000	UCHA25	20.000			REFB	6.1580	IN.
		CANRON	0.000	CFLAPR	0.000					XMRP	16.1220	IN.
										YMRP	0.0000	IN.
										ZMRP	4.8130	IN.
										SCALE	0.0175	

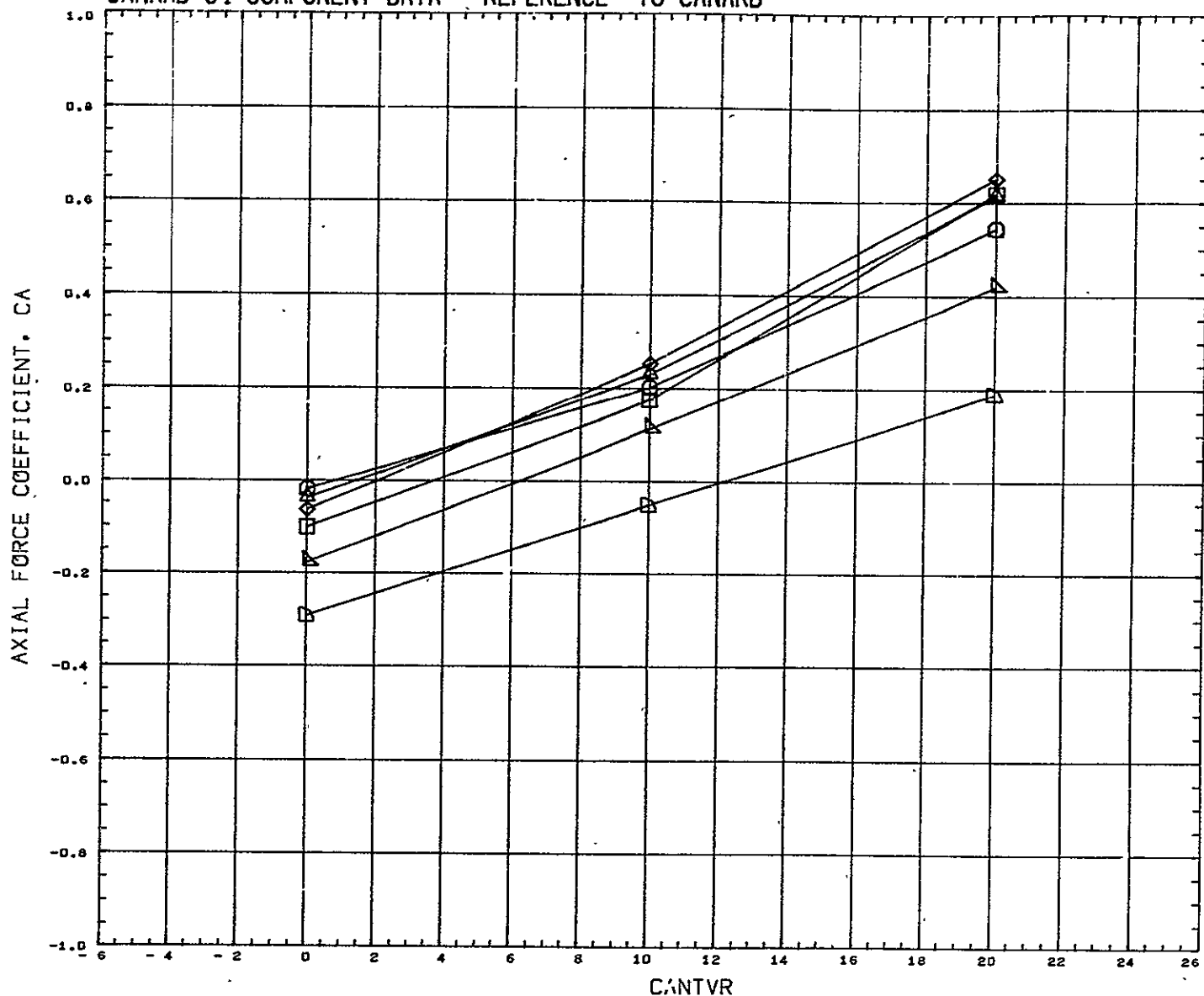
DATA HIST. CODE HVV#ATI#CSM

# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



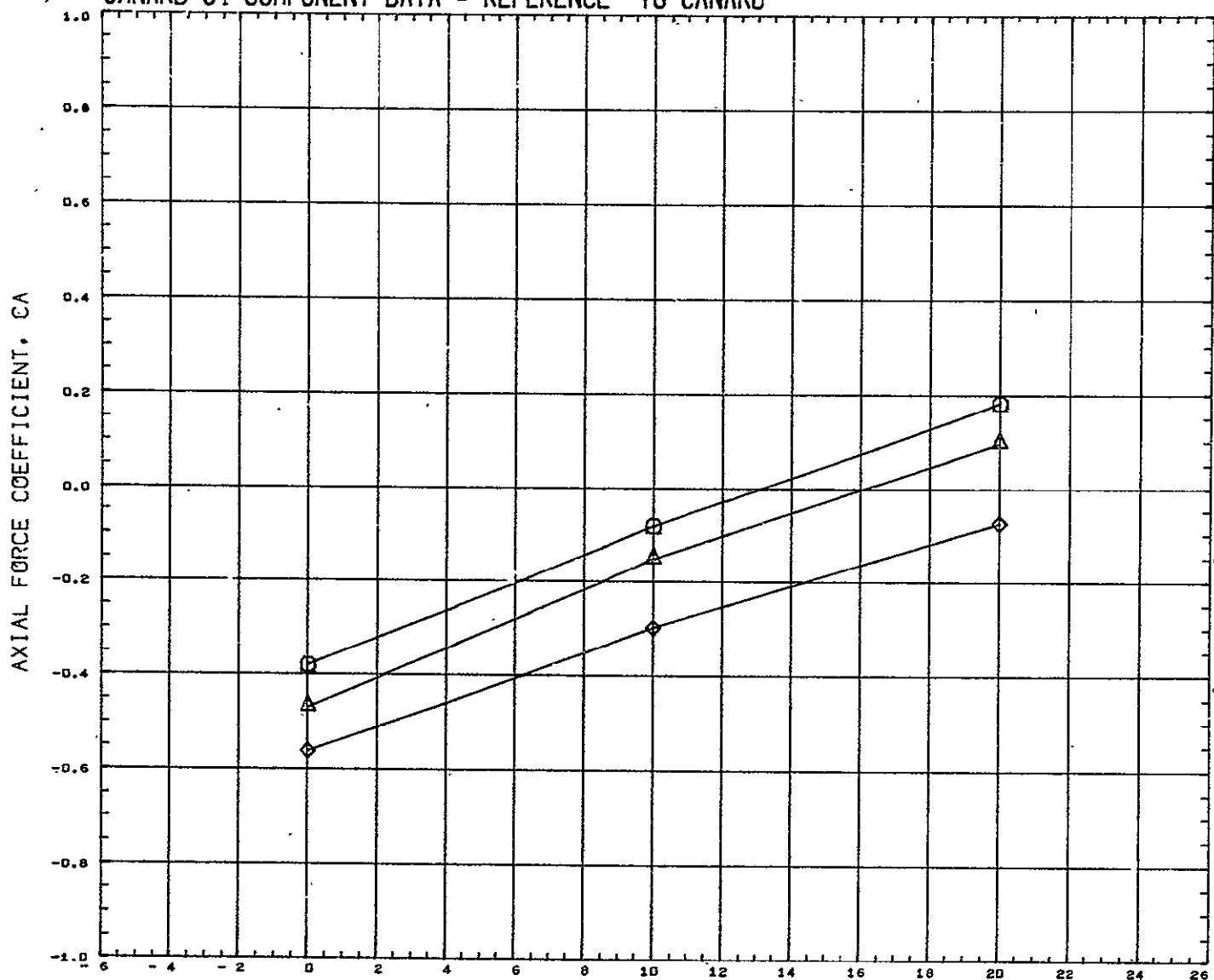
SYMBOL		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	4.000	CANARD	1.000	BETA	0.000	UCMA21	0.000	UCMA24	10.000	REFS	20.3040	.SQ. IN
◇	2.000	Q	60.000	ELEVTR	0.000	UCMA21	0.000	UCMA24	10.000	REFL	4.0160	IN.
◇	0.000	AILRON	0.000	CANVTR	0.000	UCMA25	20.000			REFB	6.1580	IN.
◇	2.000	CANRON	0.000	CFLAPR	0.000					XMRP	16.1220	IN.
◇	4.000									YMRP	0.0000	IN.
◇	6.000									ZMRP	4.8130	IN.
		DATA HIST. CODE	MVV*ATI*CSM							SCALE	0.0175	

# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
◇	8.000	CANARD 1.000 BETA 0.000	DATASET CANTVR DATASET CANTVR	REFS 20.3040 SQ. IN
◇	10.000	Q 60.000 ELEVTR 0.000	UCHA21 0.000 UCHA24 10.000	REFL 4.0160 IN.
◇	12.000	AILRON 0.000 CANTVR 0.000	UCHA25 20.000	REFB 6.1580 IN.
◇	14.000	CANRON 0.000 CFLAFR 0.000		XHRP 16.1220 IN.
◇	16.000			YHRP 0.0000 IN.
◇	18.000	DATA HIST. CODE MVV*ATI*CSM		ZHRP 4.8130 IN.
				SCALE 0.0175

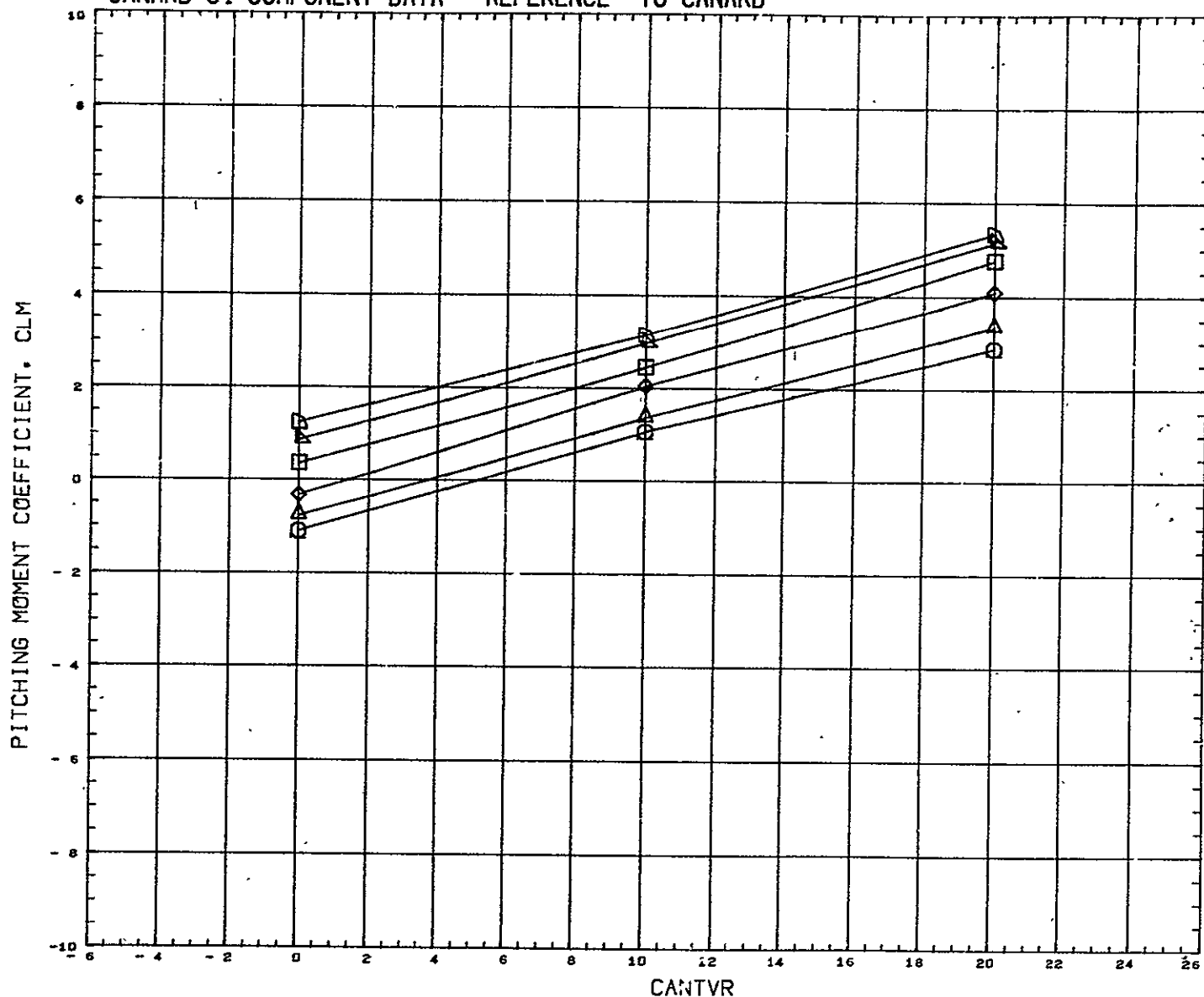
# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
○	20.000	<u>CANARD</u>	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	20.3040	SQ. IN	
△	22.000	Q	60.000	ELEVTR	0.000	UCHA21	0.000	UCHA24	10.000	REFL	4.0160	IN.	
◇	24.000	AILRON	0.000	CANTVR	0.000	UCHA25	20.000			REFB	6.1580	IN.	
		CANRON	0.000	CFLAPR	0.000					XHRP	16.1220	IN.	
										YHRP	0.0000	IN.	
										ZHRP	4.8130	IN.	
										SCALE	0.0175		
		DATA HIST. CODE	MVV&ATT&CSM										

DATA HIST. CODE MVV#ATI+CSM

# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



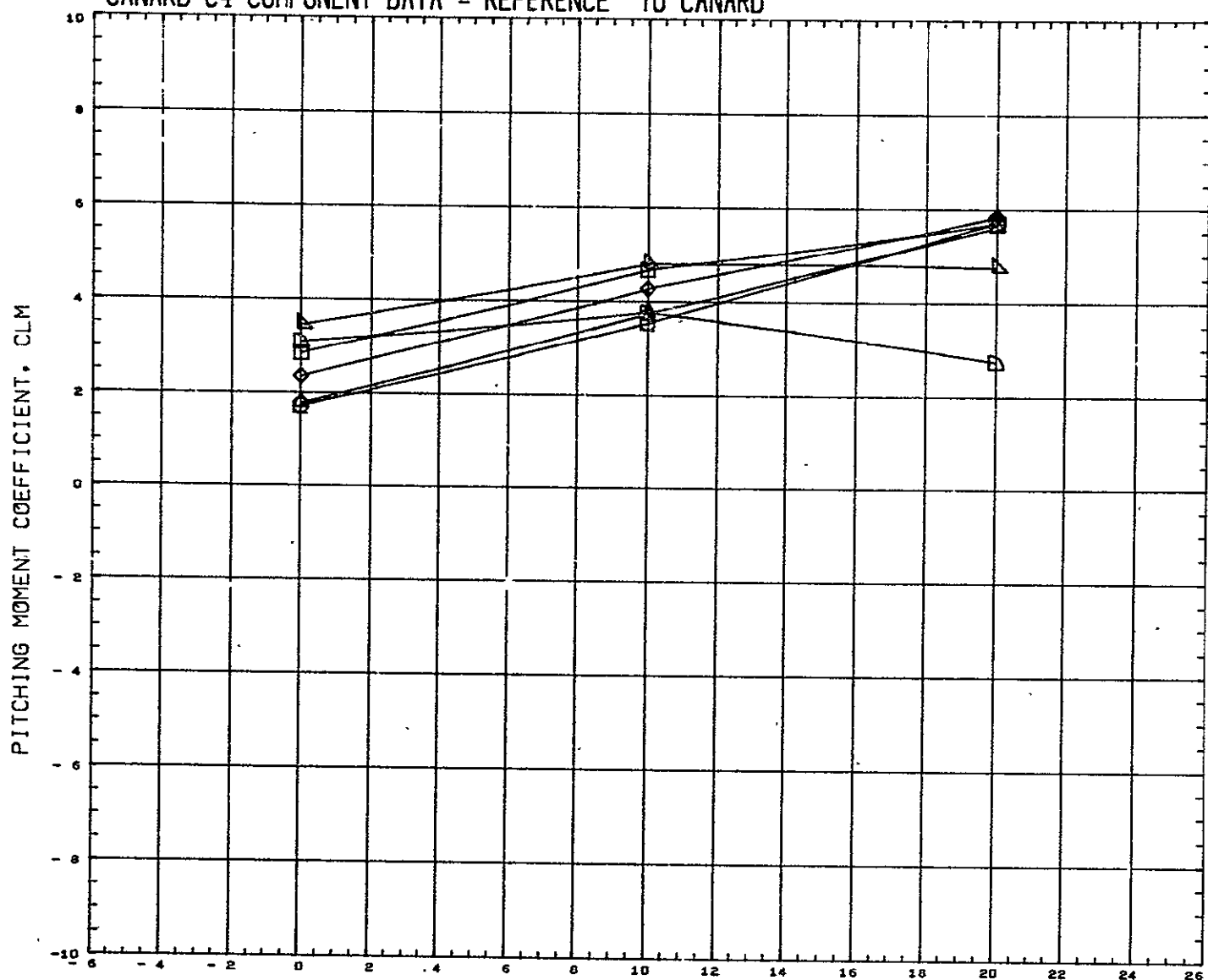
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
◇	4.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	SQ. IN
□	2.000	Q	60.000	ELEVTR	0.000	UCMA21	0.000	UCMA24	10.000	REFL	IN.
△	0.000	AILRON	0.000	CANVTR	0.000	UCMA25	20.000			REFB	IN.
○	2.000	CANROW	0.000	CFLAPR	0.000					XMRP	IN.
×	4.000									YMRP	IN.
	6.000	DATA HIST. CODE	MOV*AT1*CSH							ZMRP	IN.
										SCALE	

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# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



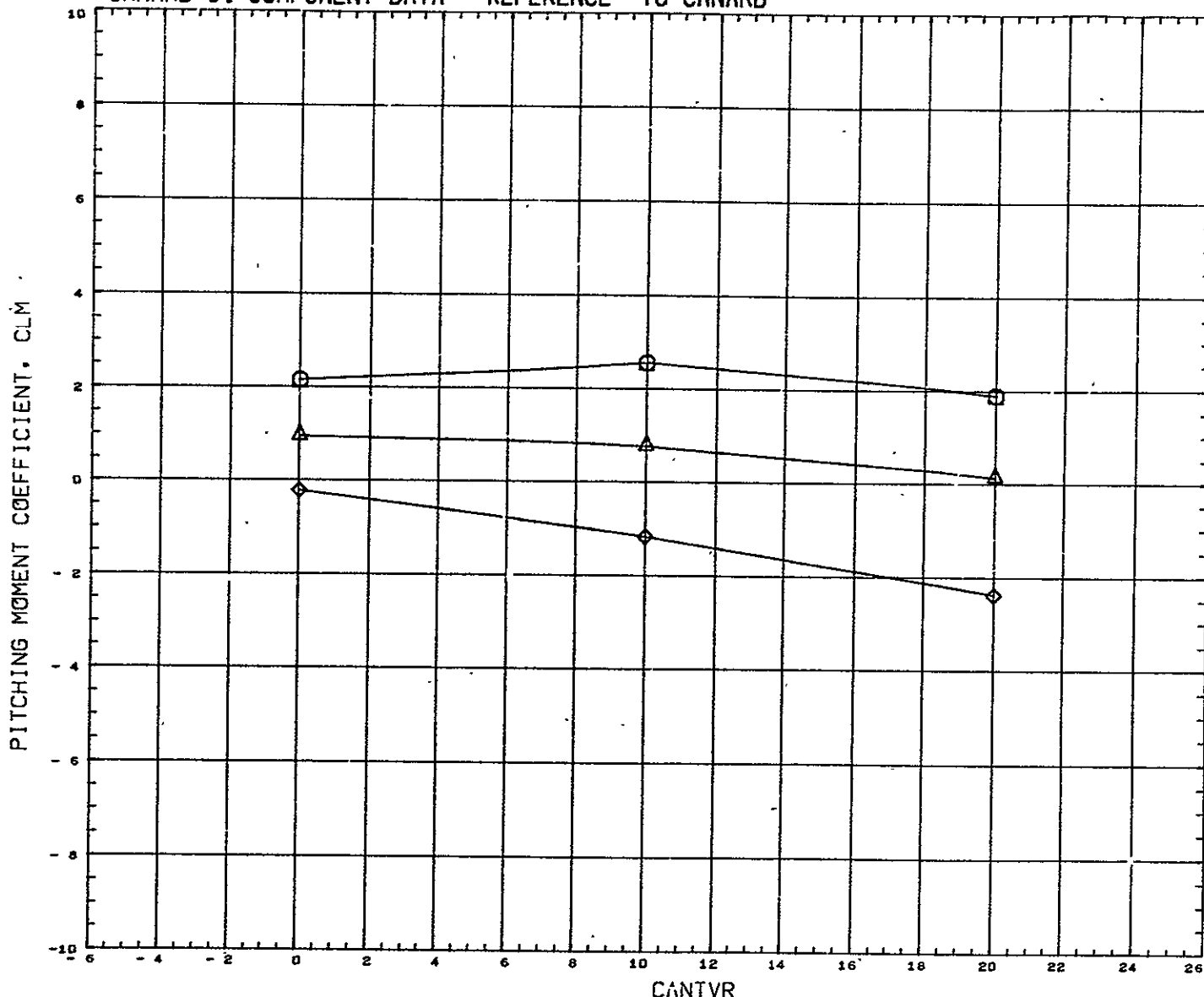
CANTVR

CANTVR												
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	8.000	<u>CANARD</u>	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	20.3040	SQ. IN
◇	10.000	Q	60.000	ELEVTR	0.000	UCMA21	0.000	UCMA24	10.000	REFL	4.0160	IN.
◇	12.000	AILRON	0.000	CANTVR	0.000	UCMA25	20.000			REFB	6.1580	IN.
◇	14.000	CANRON	0.000	CFLAPR	0.000					XMRP	16.1220	IN.
◇	16.000									YMRP	0.0000	IN.
◇	18.000									ZMRP	4.8130	IN.
		DATA HIST. CODE	MVV*ATI*CSM							SCALE	0.01*5	

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# CANARD C4 COMPONENT DATA - REFERENCE TO CANARD



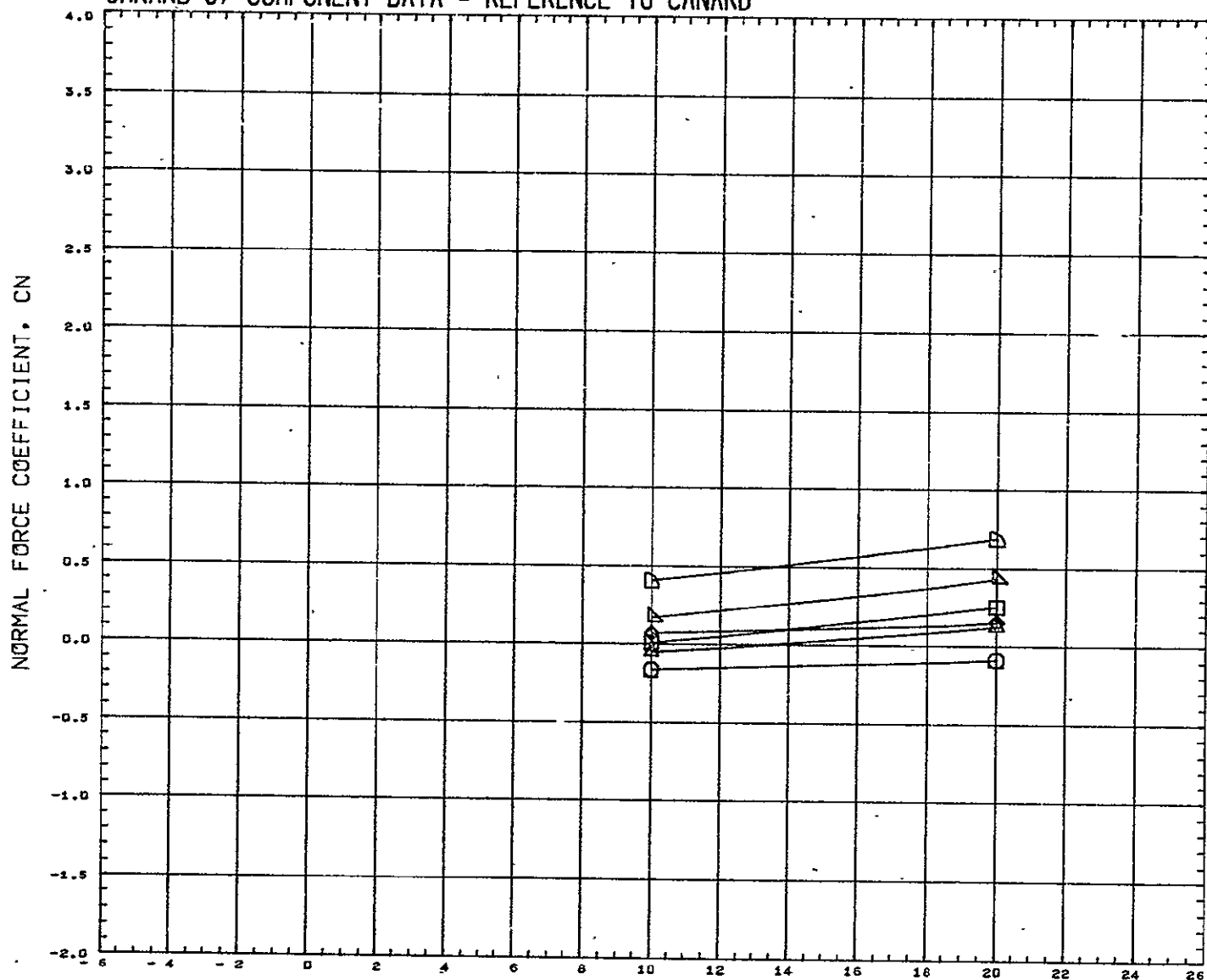
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	20.3040	SQ. IN
△	22.000	Q	60.000	ELEVTR	0.000	UCMA21	0.000	UCMA24	10.000	REFL	4.0160	IN.
◇	24.000	AILRON	0.000	CANTVR	0.000	UCMA25	20.000			REFB	6.1580	IN.
		CANRON	0.000	CFLAPR	0.000					XMRP	16.1220	IN.
										YMRP	0.0000	IN.
										ZMRP	4.8130	IN.
										SCALE	0.0175	

DATA HIST. CODE MVV\*ATI\*CSH

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# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD

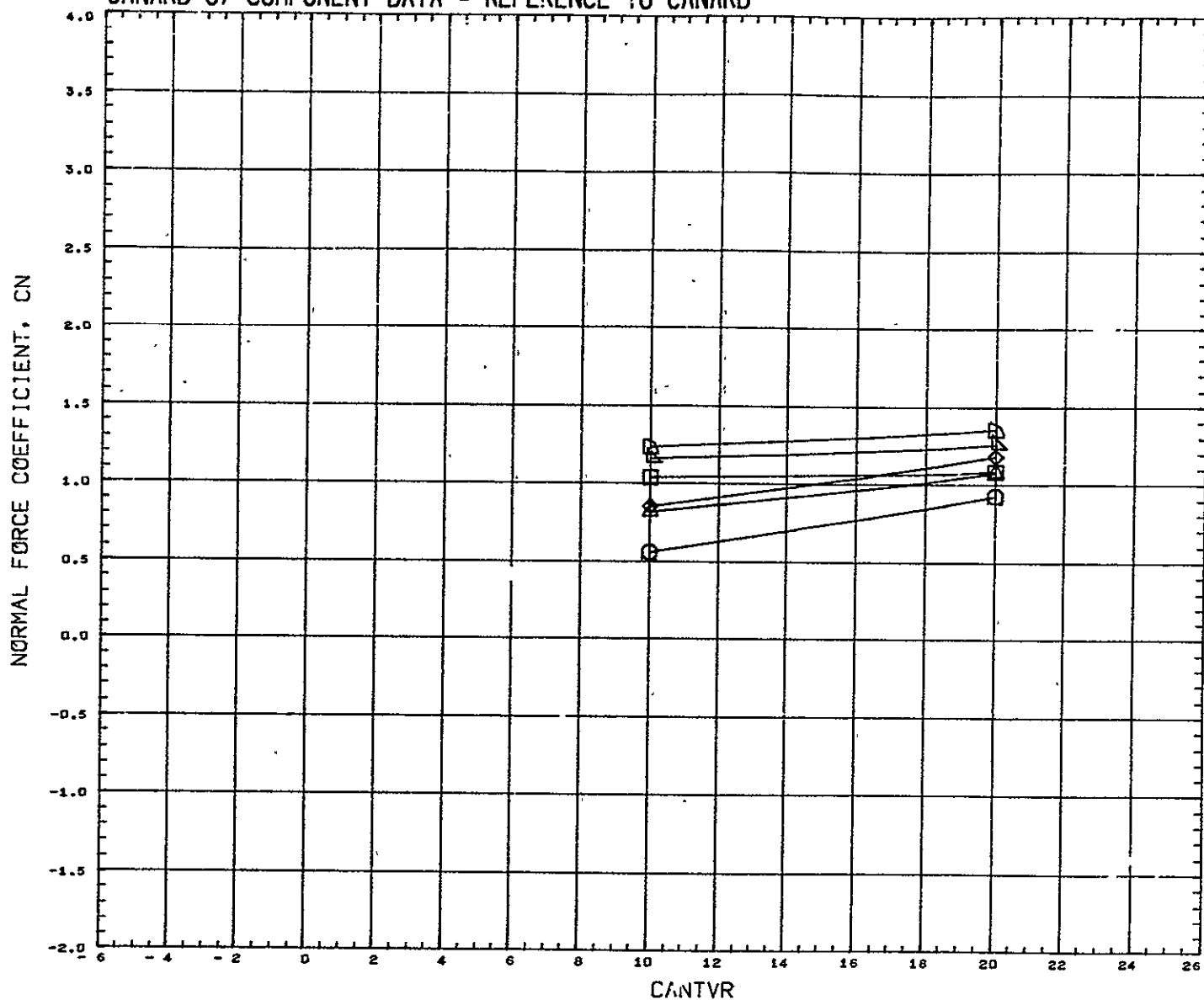


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
◇	4.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	SQ. IN
◇	2.000	3	60.000	ELEVTR	0.000	UCHA22	10.000	UCHA23	20.000	REFL	IN.
◇	0.000	AILRON	0.000	CANRON	0.000					REFB	IN.
◇	2.000	CFLAFR	0.000	RUDDER	0.000					XMRP	IN.
◇	4.000									YMRP	IN.
◇	6.000									ZMRP	IN.
		DATA HIST. CODE	MVVTI#CSH							SCALE	

GDLSI 587-0 C7 (B19W10-13V7)

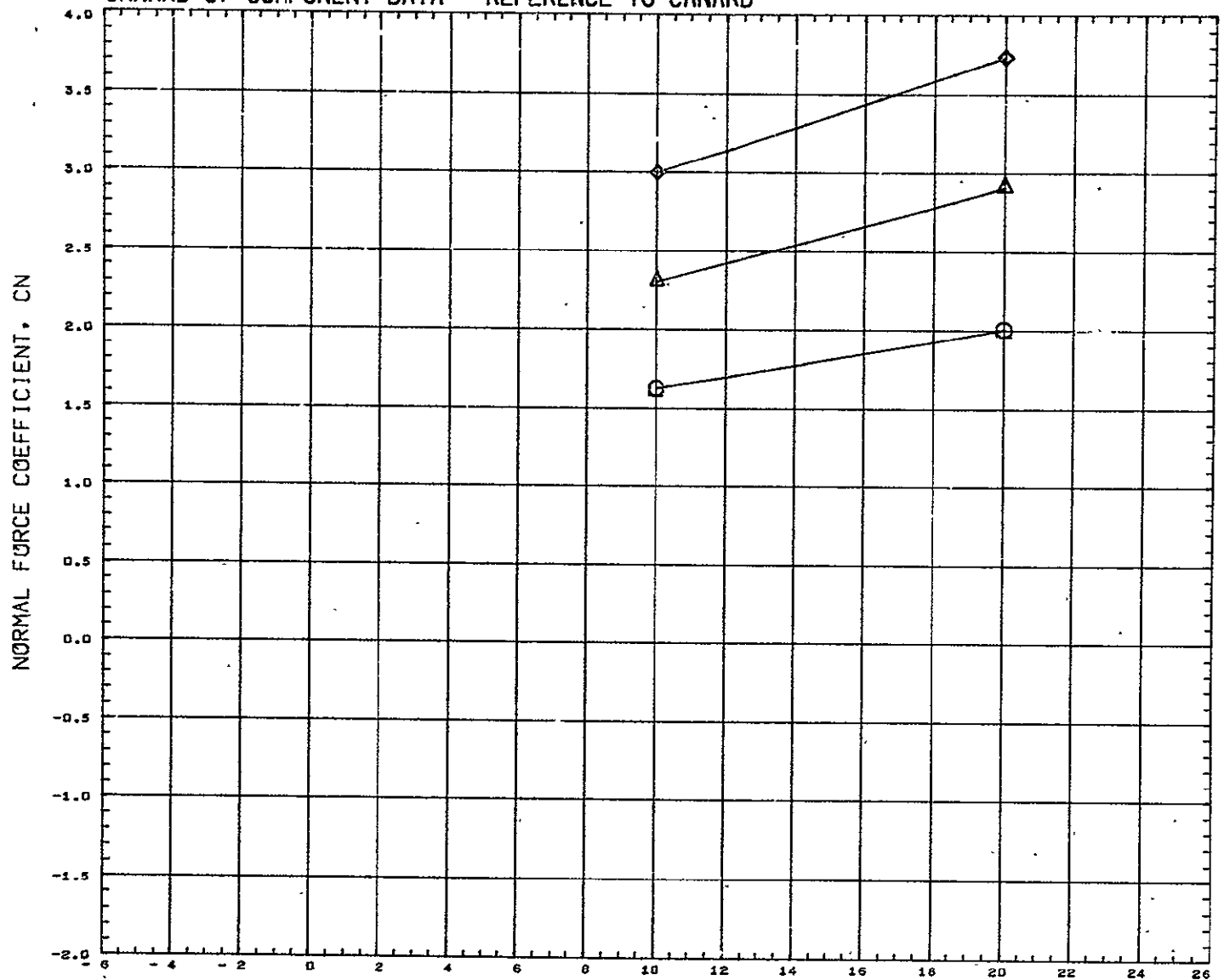
(UCHA22) 21 AUG 71 PAGE 239

# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	8.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	8.5800	SQ. IN
□	10.000	0	60.000	ELEVTR	0.000	UCHA22	10.000	UCHA23	20.000	REFL	2.6780	IN.
◇	12.000	A1LRON	0.000	CANRON	0.000					REFB	3.6000	IN.
△	14.000	CFLAPR	0.000	RUDDER	0.000					XHRP	16.0240	IN.
◐	16.000									YHRP	0.0000	IN.
	18.000	DATA HIST. CODE	MVVTI*CSM							ZHRP	4.8130	IN.
										SCALE	0.0175	

# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD

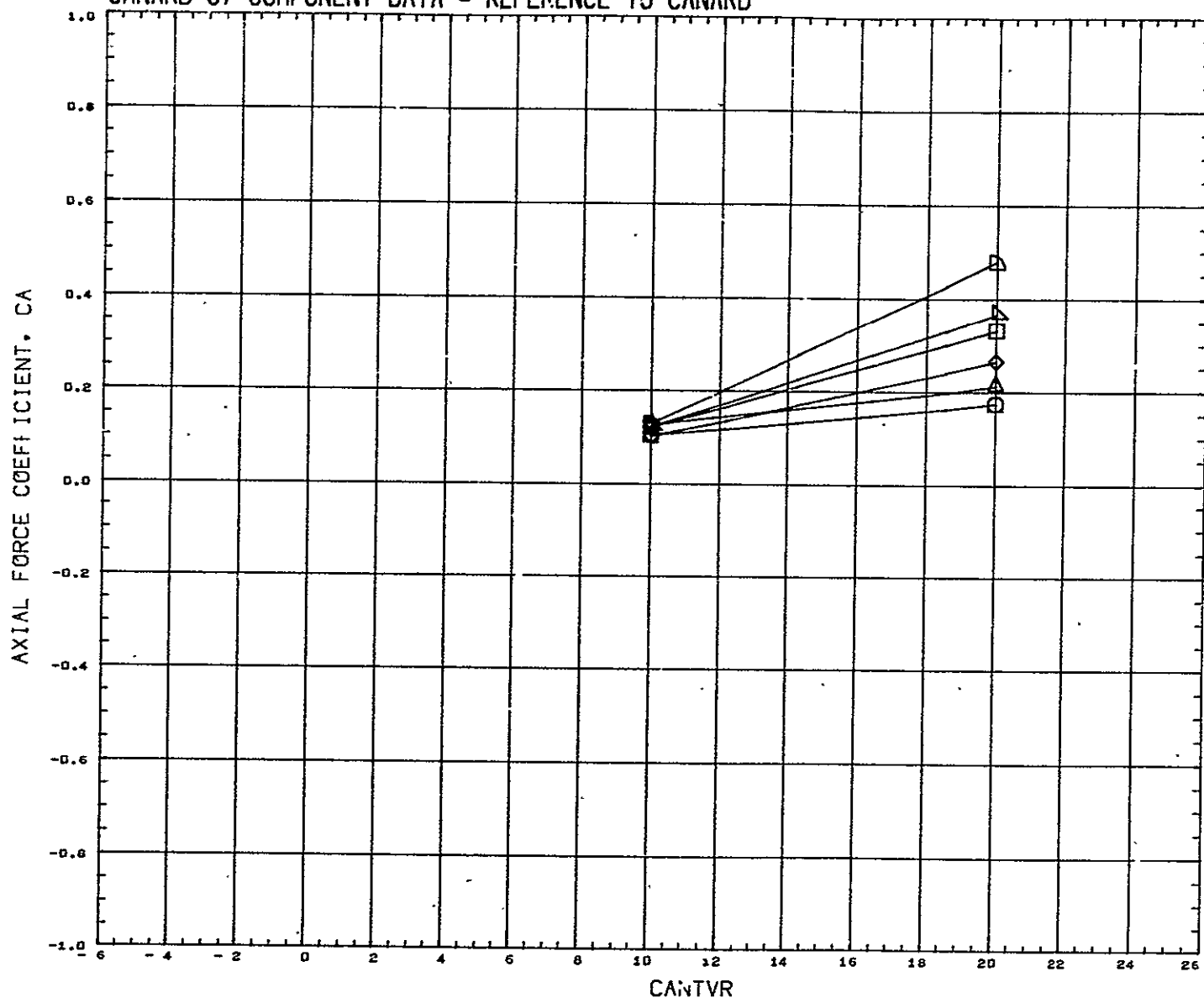


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	<u>CANARD</u>	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	8.5800	SQ. IN
△	22.000	0	60.000	ELEVTR	-0.000	UCHA22	10.000	UCHA23	20.000	REFL	2.6790	IN.
◇	24.000	AILRON	0.000	CANRON	0.000					REFB	3.6000	IN.
		CFLAPR	0.000	RUDDER	0.000					XMRP	16.0240	IN.
										YMRP	0.0000	IN.
										ZMRP	4.8130	IN.
										SCALE	0.0175	
DATA HIST. CODE MVVTI*CSH												

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# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD

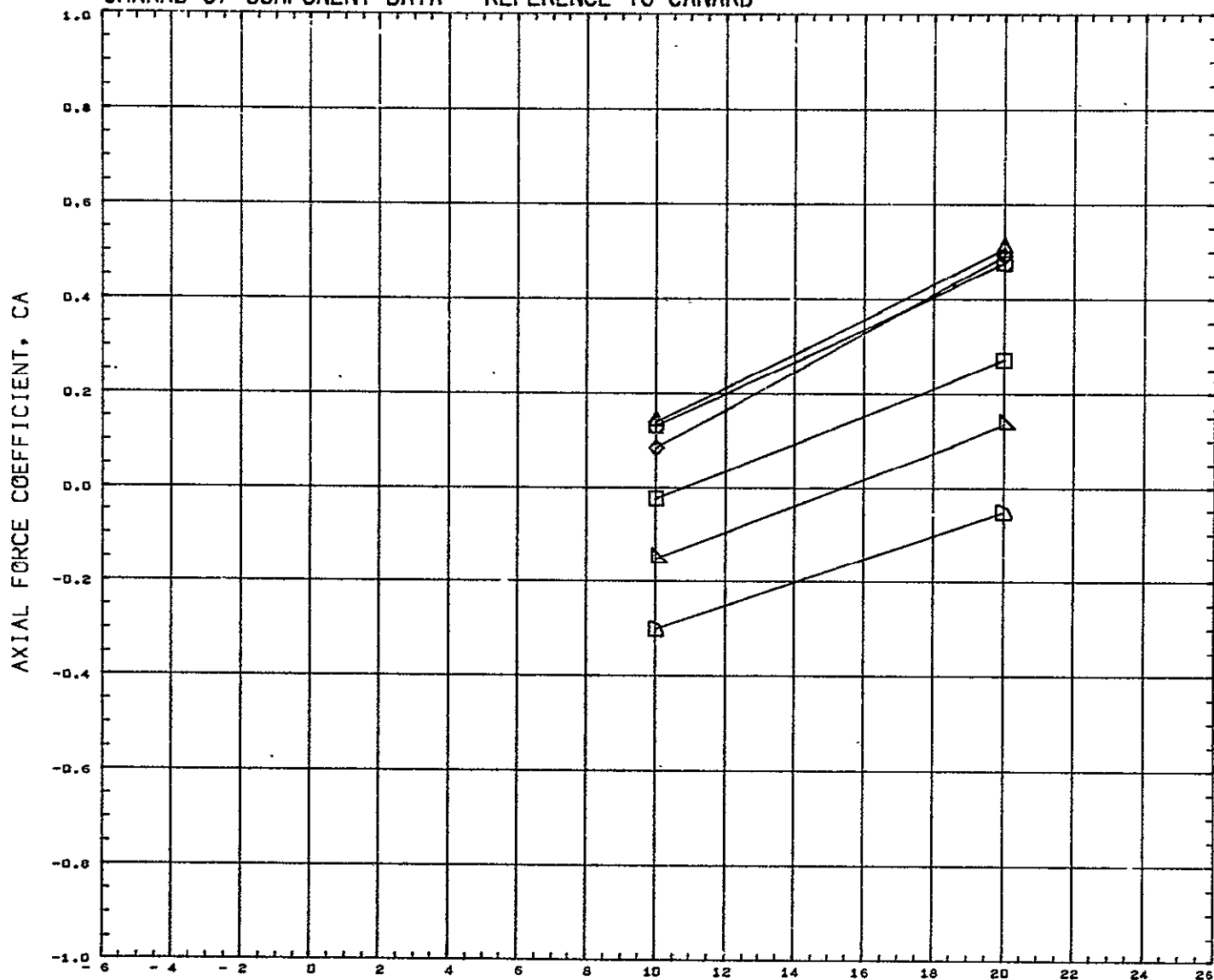


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
◇	4.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	8.5800
◇	2.000	Q	60.000	ELEVTR	0.000	UCHA22	10.000	UCHA23	20.000	REFL	2.6790
◇	0.000	AILRON	0.000	CANRON	0.000					REFB	3.6000
◇	2.000	CFLAFR	0.000	RUDDER	0.000					XHRF	16.0240
◇	4.000									YHRF	0.0000
◇	6.000									ZHRF	4.8130
		DATA HIST. CODE		HVVTI*CSM						SCALE	0.0175

GDLST 587-0 C7 (B19W10-13V7)

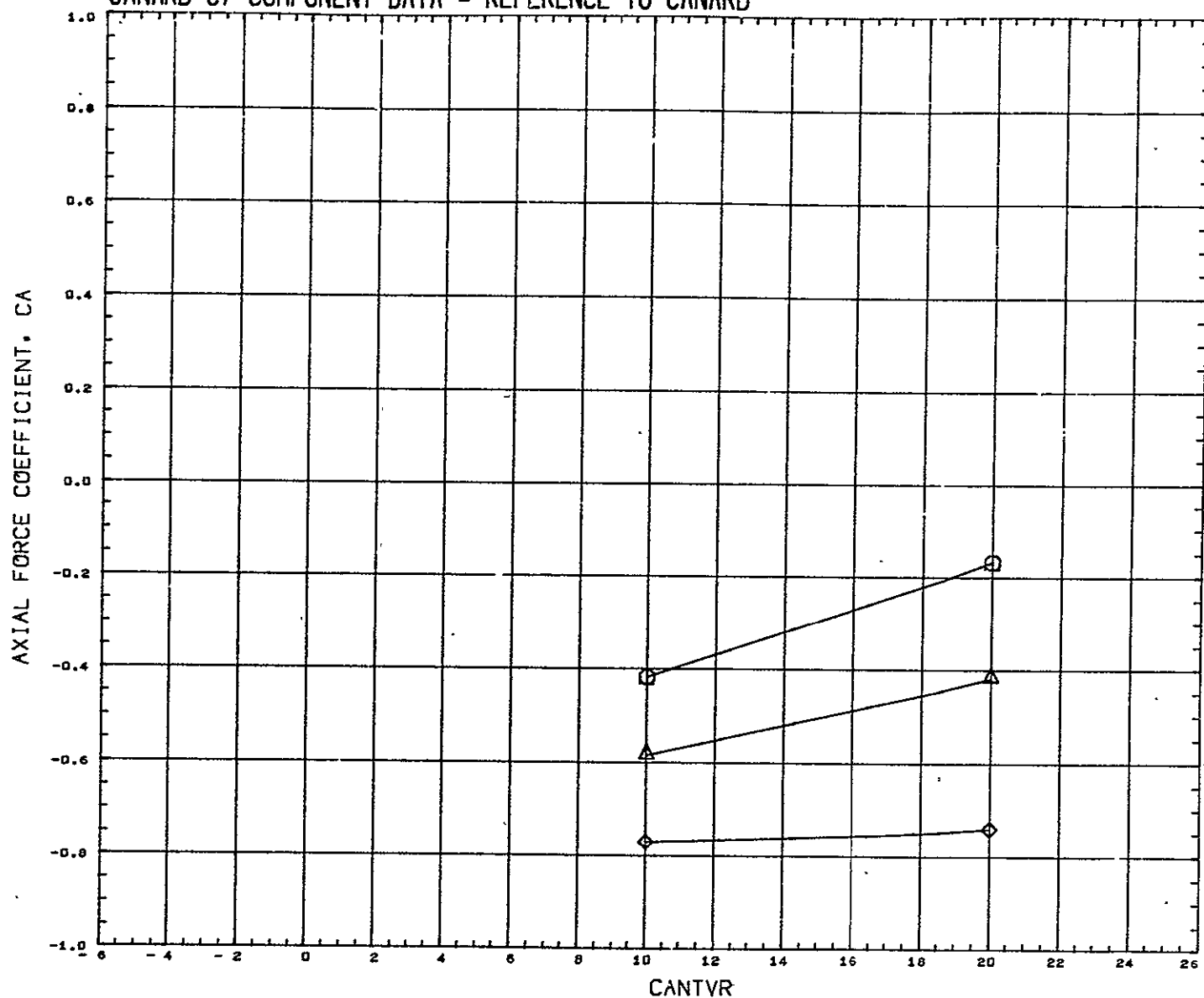
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# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	8.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	8.5000	SQ. IN
△	10.000	0	60.000	ELEVTR	0.000	UCA22	10.000	UCA23	20.000	REFL	2.6790	IN.
◇	12.000	AILRON	0.000	CANRON	0.000					REFB	3.6000	IN.
◻	14.000	CFLAPR	0.000	RUDDER	0.000					XMRP	16.0240	IN.
◻	16.000									YMRP	0.0000	IN.
◻	18.000	DATA HIST. CODE	MYVTI*CSM							ZMRP	4.8130	IN.
										SCALE	0.0175	

# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD



CONTINUED													
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION			
○	20.000	<u>CANARD</u>	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	8.5800	SQ. IN	
△	22.000	0	60.000	ELEVTR	0.000	UCHA22	10.000	UCHA23	20.000	REFL	2.6790	IN.	
◇	24.000	AILRON	0.000	CANRON	0.000					REFB	3.6000	IN.	
		CFLAPR	0.000	RUDDER	0.000					XMRP	16.0240	IN.	
										YMRP	0.0000	IN.	
										ZMRP	4.8130	IN.	
										SCALE	0.0175		
		DATA HIST. CODE		MNVIIICSM									

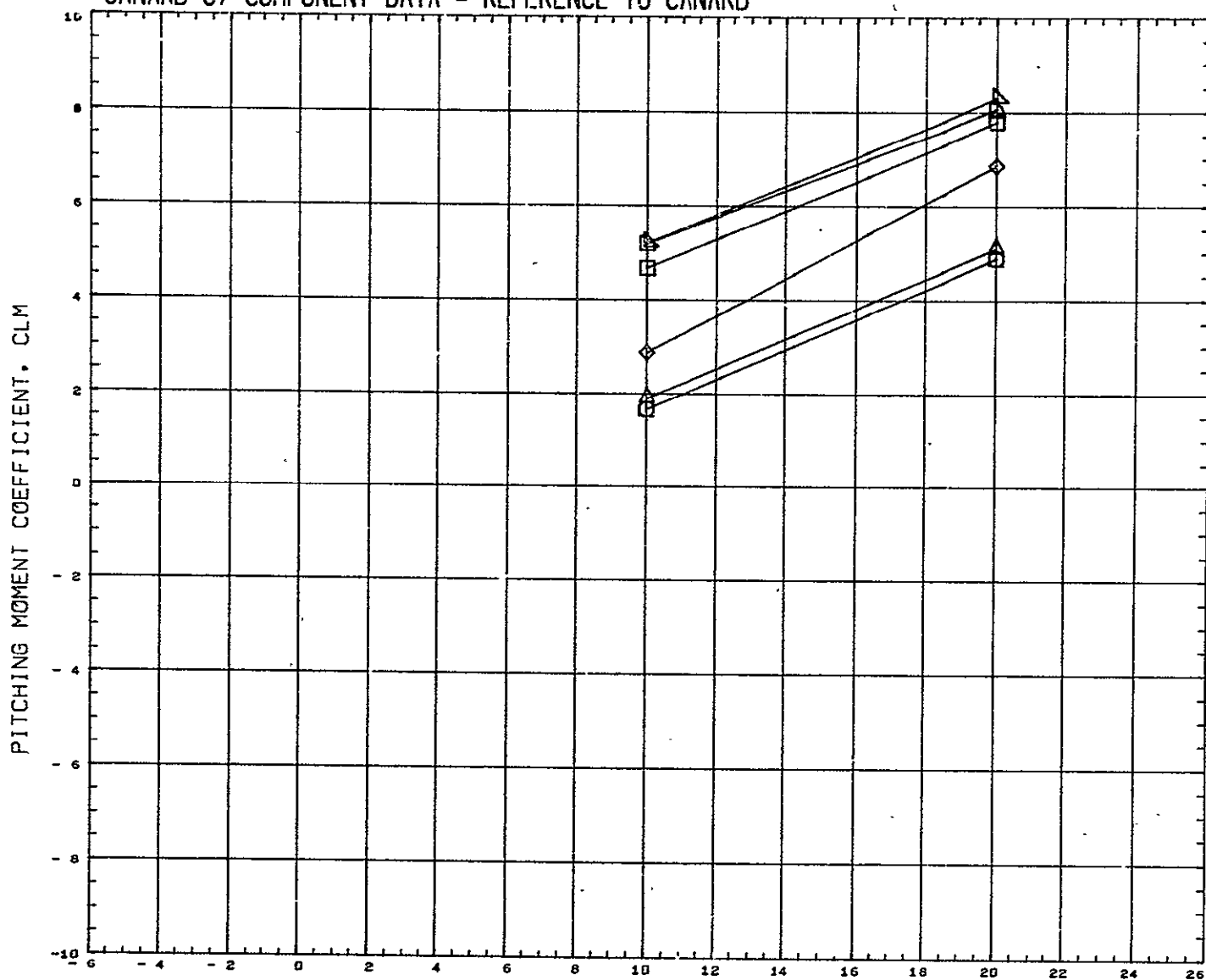
DATA HIST. CODE MVVTI#CSH

GDLST 587-0 C7 (B19W10-13V7)

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# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD

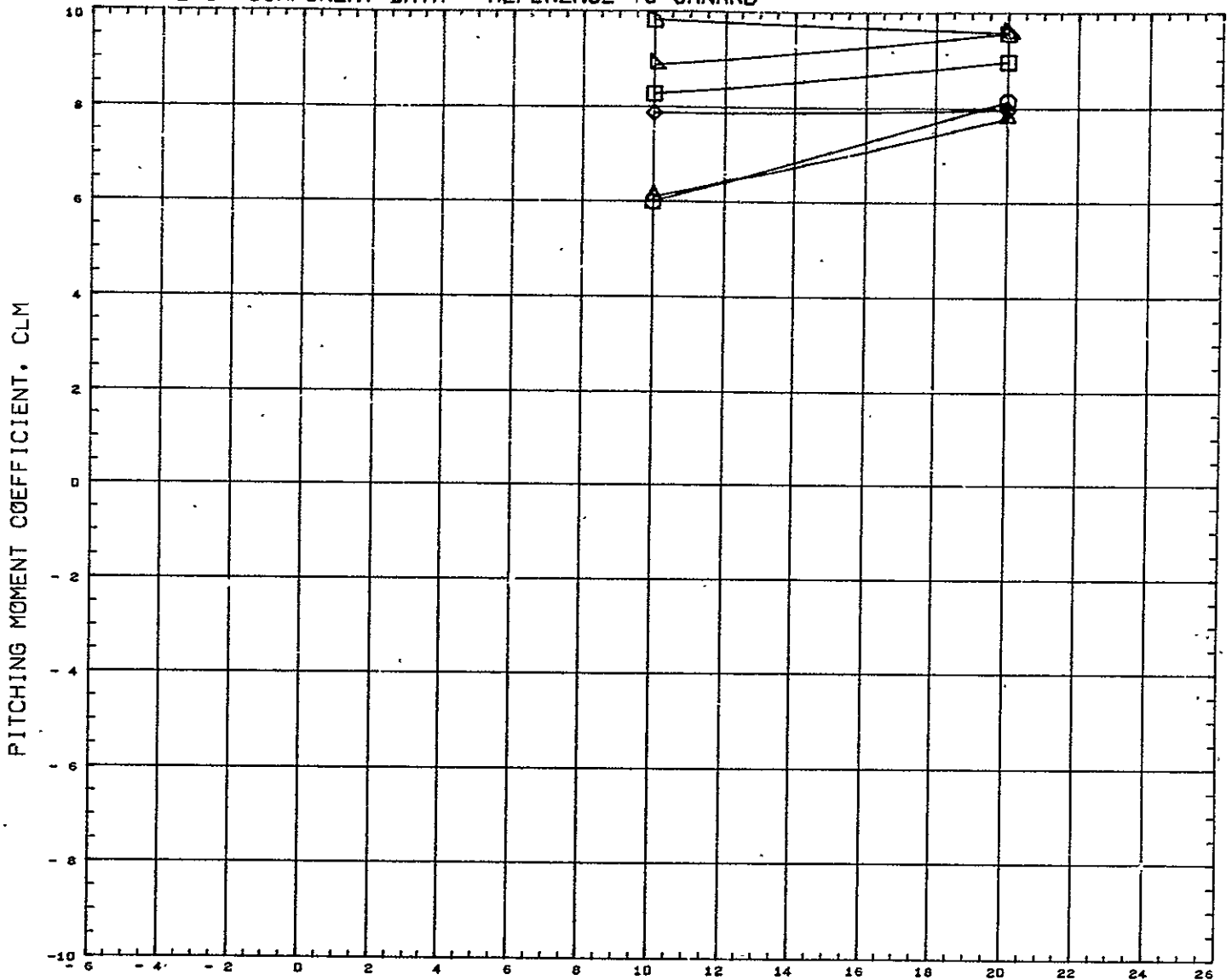


SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	4.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	8.5800	SQ. IN
◇	2.000	Q	60.000	ELEVTR	0.000	UCMA22	10.000	UCMA23	20.000	REFL	2.6790	IN.
◇	0.000	AILRON	0.000	CANCON	0.000					REFB	3.6000	IN.
◇	2.000	CFLAFR	0.000	RUDDER	0.000					XHRF	16.0240	IN.
◇	4.000									YHRF	0.0000	IN.
◇	6.000	DATA HIST. CODE	NVVTI*CSH							ZHRF	4.8130	IN.
										SCALE	0.0175	

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# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD

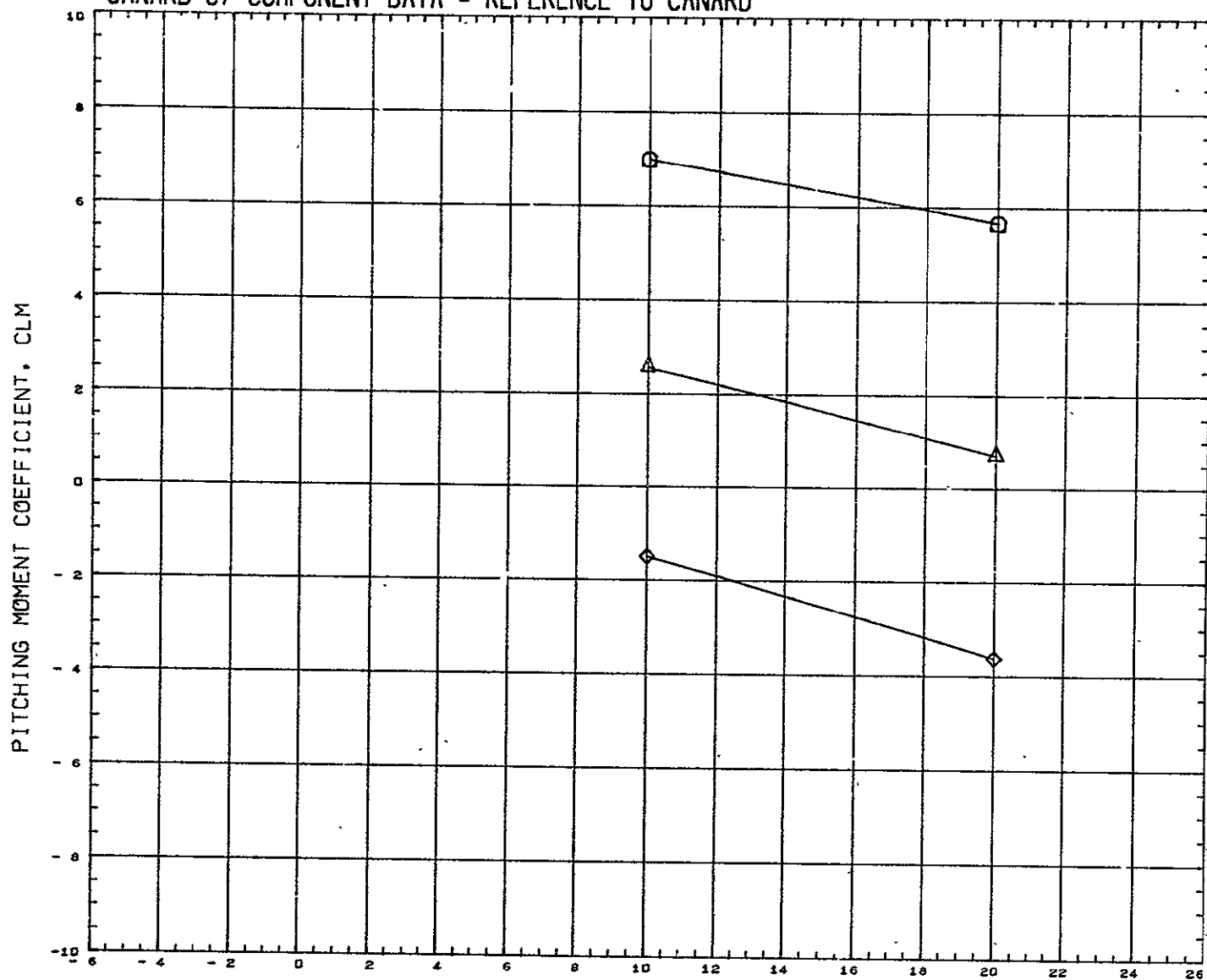


SYMBOL	ALPHA	PARAMETRIC VALUES	DATA SOURCE	REFERENCE INFORMATION
○	8.000	CANARD 1.000 BETA 0.000	DATASET CANTVR DATASET CANTVR	REFS 8.5800 SQ. IN
△	10.000	Q 60.000 ELEVTR 0.000	UCHA22 10.000 UCHA23 20.000	REFL 2.6790 IN.
◇	12.000	AILRON 0.000 CANCON 0.000		REFB 3.6000 IN.
◊	14.000	CFLAPR 0.000 RUDDER 0.000		XHRP 16.0240 IN.
◻	16.000			YHRP 0.0000 IN.
◼	18.000			ZHRP 4.8130 IN.
		DATA HIST. CODE, MVVTI*CSH		SCALE 0.0175

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# CANARD C7 COMPONENT DATA - REFERENCE TO CANARD



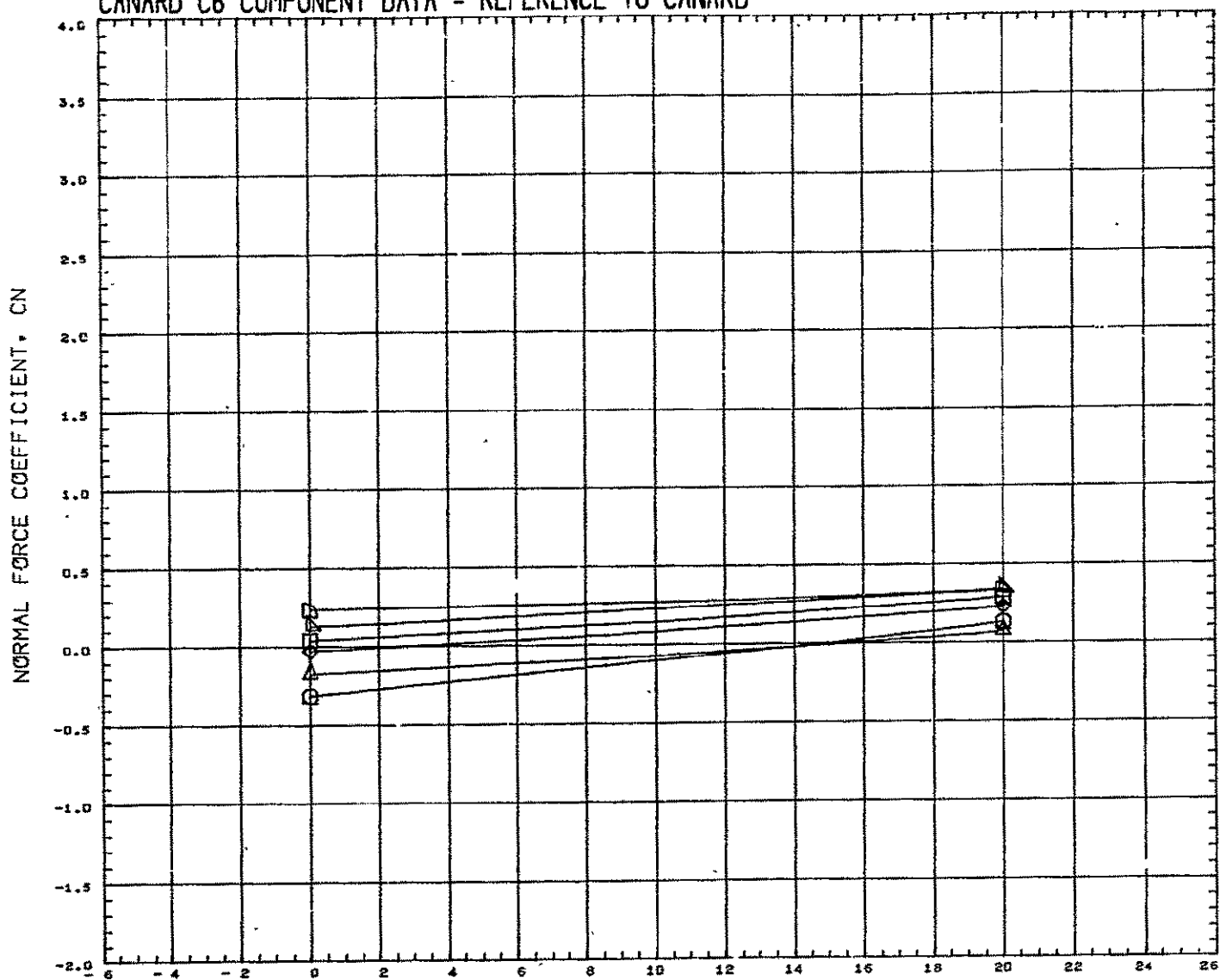
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	CANARD	1.000	BETA	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	8.5800	SQ. IN
△	22.000	Q	60.000	ELEVTR	0.000	UCMA22	10.000	UCMA23	20.000	REFL	2.6790	IN.
◇	24.000	AILRON	0.000	CANRON	0.000					REFB	3.6000	IN.
		CFLAPR	0.000	RUDDER	0.000					XMRP	16.0240	IN.
										YMRP	0.0000	IN.
										ZMRP	4.8130	IN.
										SCALE	0.0175	

DATA HIST. CODE MVTI\*CSH

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# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD

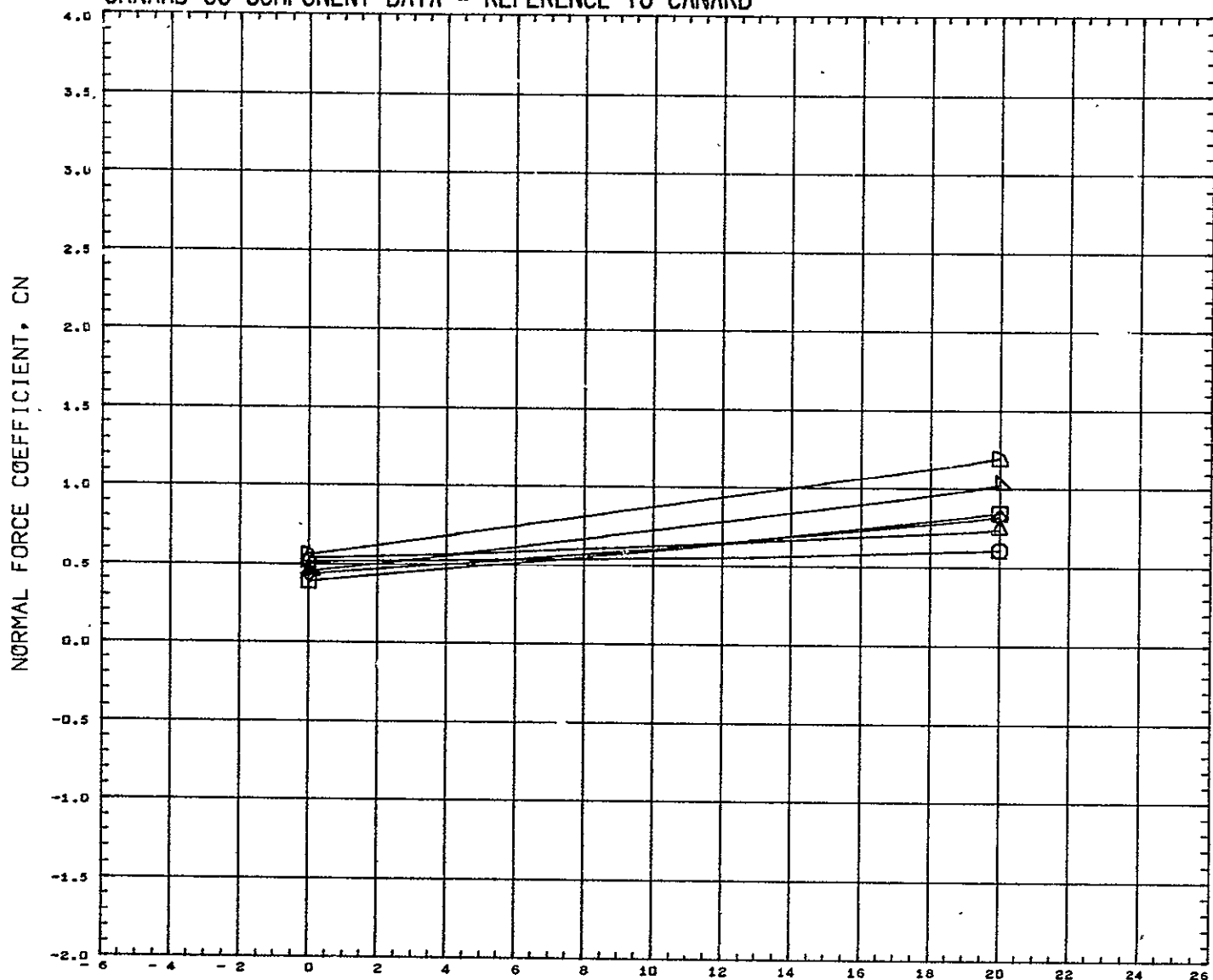


CANTVR												
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION			
◇	- 4.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	SQ. IN
△	- 2.000	AILRON	0.000	RUDDER	0.000	UCMA45	0.000	UCMA44	20.000	REFL	2.2560	IN.
◻	0.000									REFB	5.8660	IN.
○	2.000									XHRF	15.5890	IN.
◇	4.000									YHRF	0.0000	IN.
◻	6.000	DATA HIST. CODE	MVV*ATI*CSH							ZHRF	4.8130	IN.
										SCALE	0.0175	

GDLST 587-0 C6 (B19W10V7)

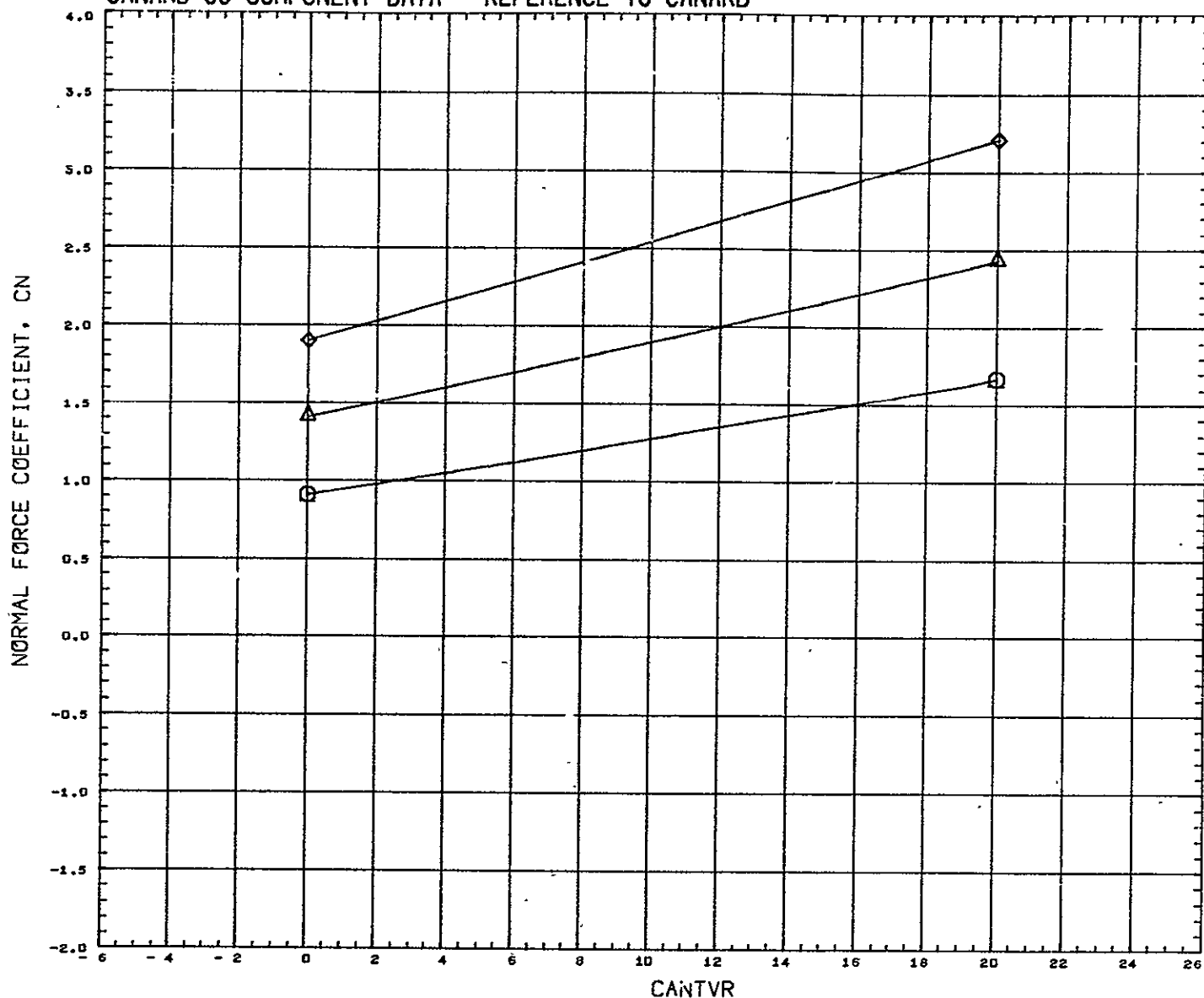
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# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
○	8.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	REFS	13.2340	SQ. IN
□	10.000	AILRON	0.000	RUDDER	0.000	UCMA45	0.000	UCHA44	REFL	2.2560	IN.
◇	12.000								REFB	5.8660	IN.
△	14.000								XMRP	15.5890	IN.
—	16.000								YMRF	0.0000	IN.
- - -	18.000								ZMRP	4.8130	IN.
	10.000	DATA HIST. CODE	MVV#ATI#CSH						SCALE	0.0175	

# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



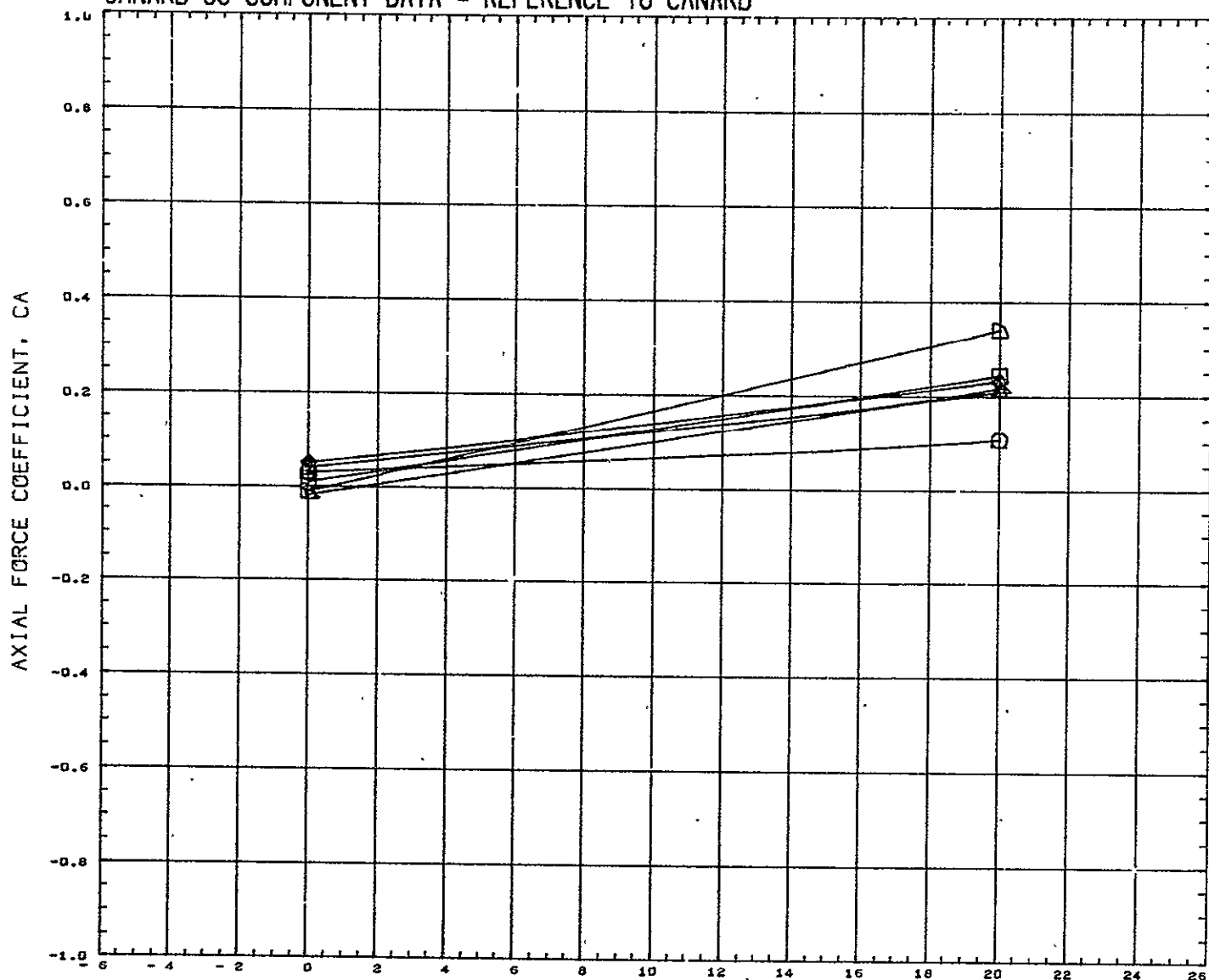
SYMBOL	ALPHA		PARAMETRIC VALUES				DATA SOURCE			REFERENCE INFORMATION		
	20.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	SQ. IN
△	22.000	AILRON	0.000	RUDDER	0.000	UCHA45	0.000	UCHA44	20.000	REFL	2.2560	IN.
◇	24.000									REFB	5.8660	IN.
										XNRF	15.5890	IN.
										YNRF	0.0000	IN.
										ZNRF	4.8130	IN.
										SCALE	0.0175	

DATA HIST. CODE MVV\*ATI\*CSM

GDLST 587-0 C6 (B19W10V7)

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# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



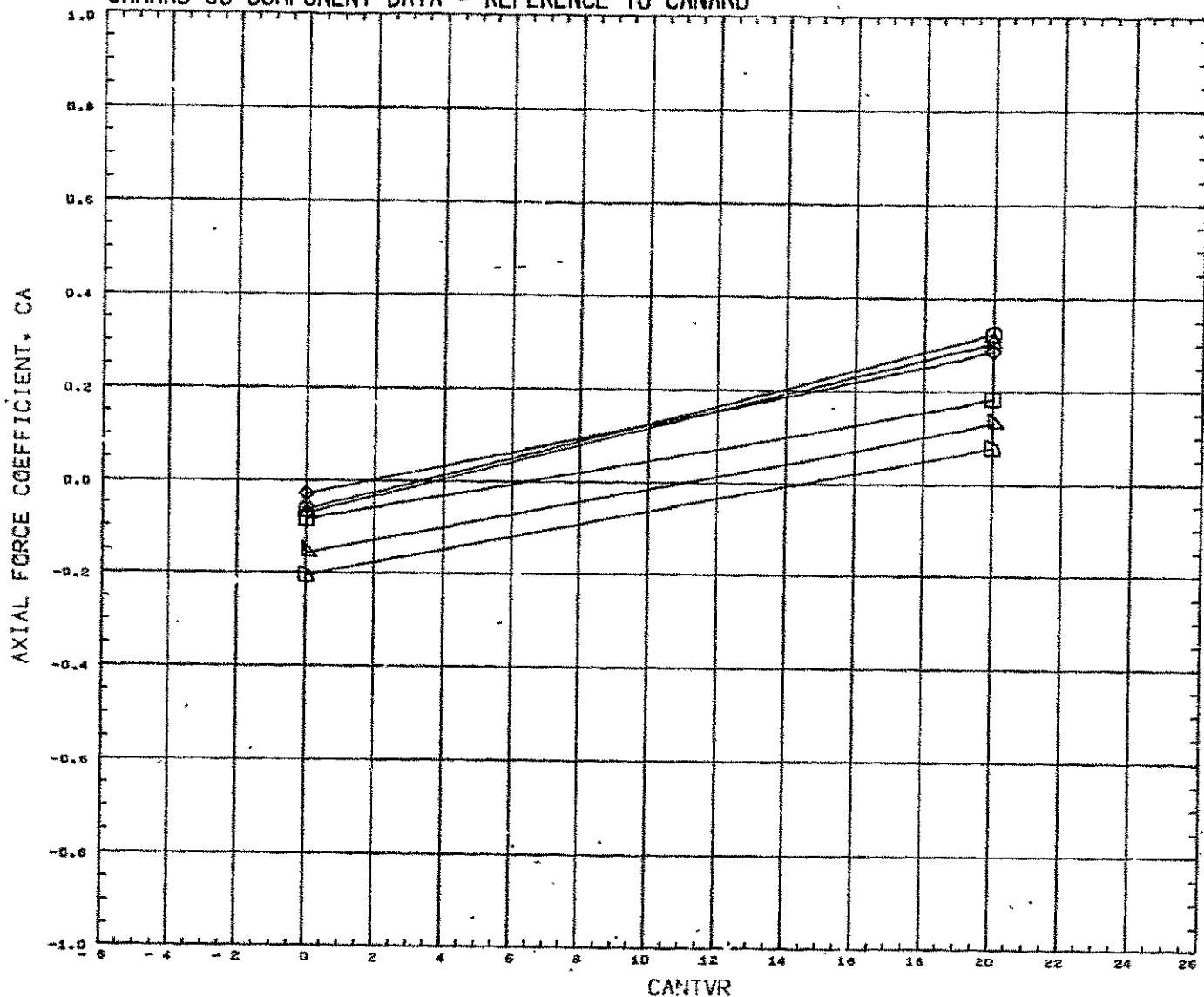
CANTVR

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	4.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	SQ. IN
◇	2.000	AILRON	0.000	RUDDER	0.000	UCMA45	0.000	UCMA44	20.000	REFL	2.2960	IN.
◇	0.000									REFB	5.8660	IN.
◇	2.000									XMRP	15.5890	IN.
◇	4.000									YMRP	0.0000	IN.
◇	6.000									ZMRP	4.8130	IN.
		DATA HIST. CODE	MVV*ATI*CSH							SCALE	0.0175	

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# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



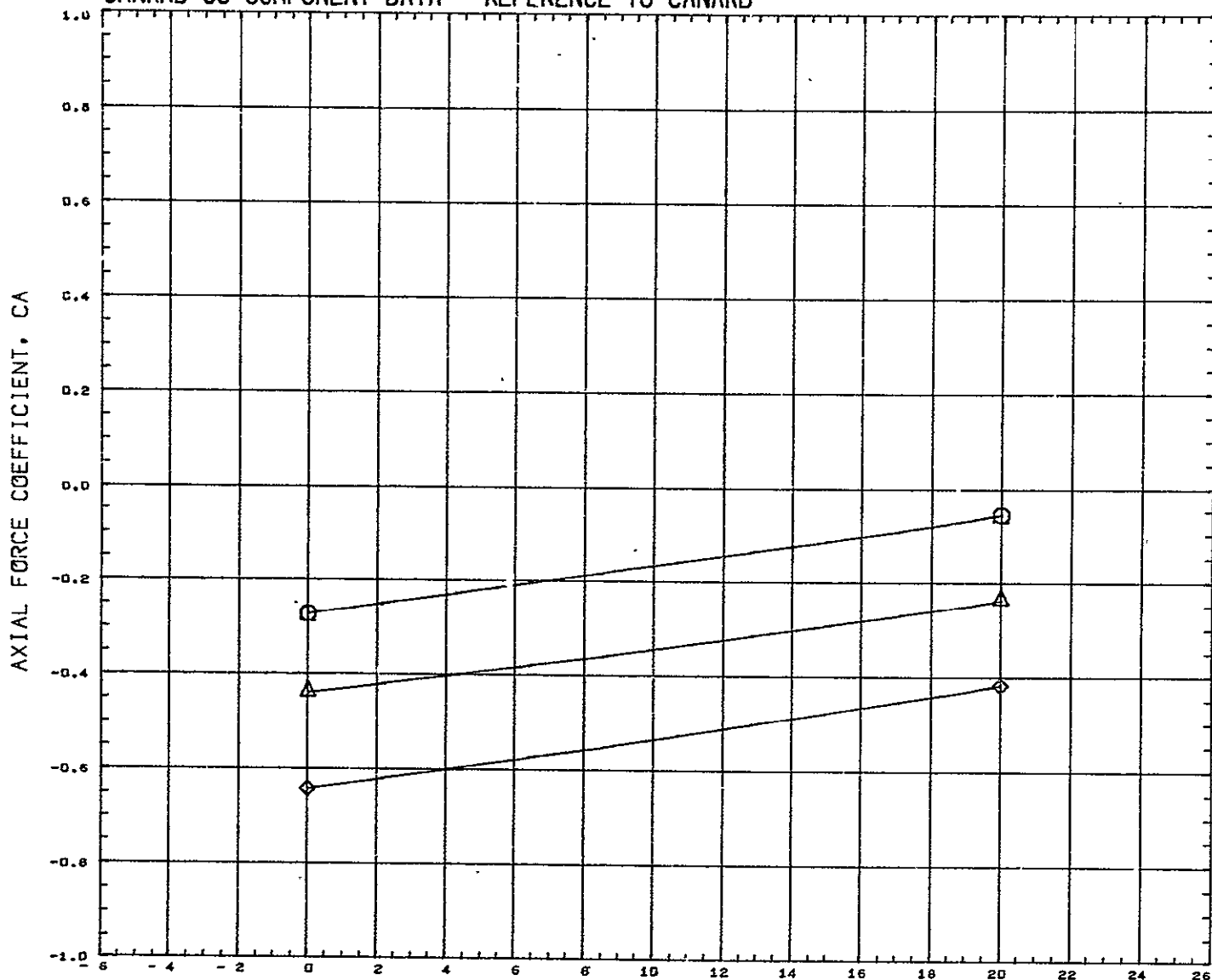
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
◇	0.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	Sq. IN
□	10.000	AILRON	0.000	RUDDER	0.000	UCMA45	0.000	UCMA44	20.000	REFL	2.2580	IN.
△	12.000									REFB	5.8688	IN.
○	14.000									XNRF	15.5890	IN.
+	16.000									YHRF	0.0000	IN.
	18.000	DATA HIST. CODE	HVW#ATI#CS#							ZHRF	4.8130	IN.
										SCALE	0.0175	

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# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



CANTVR

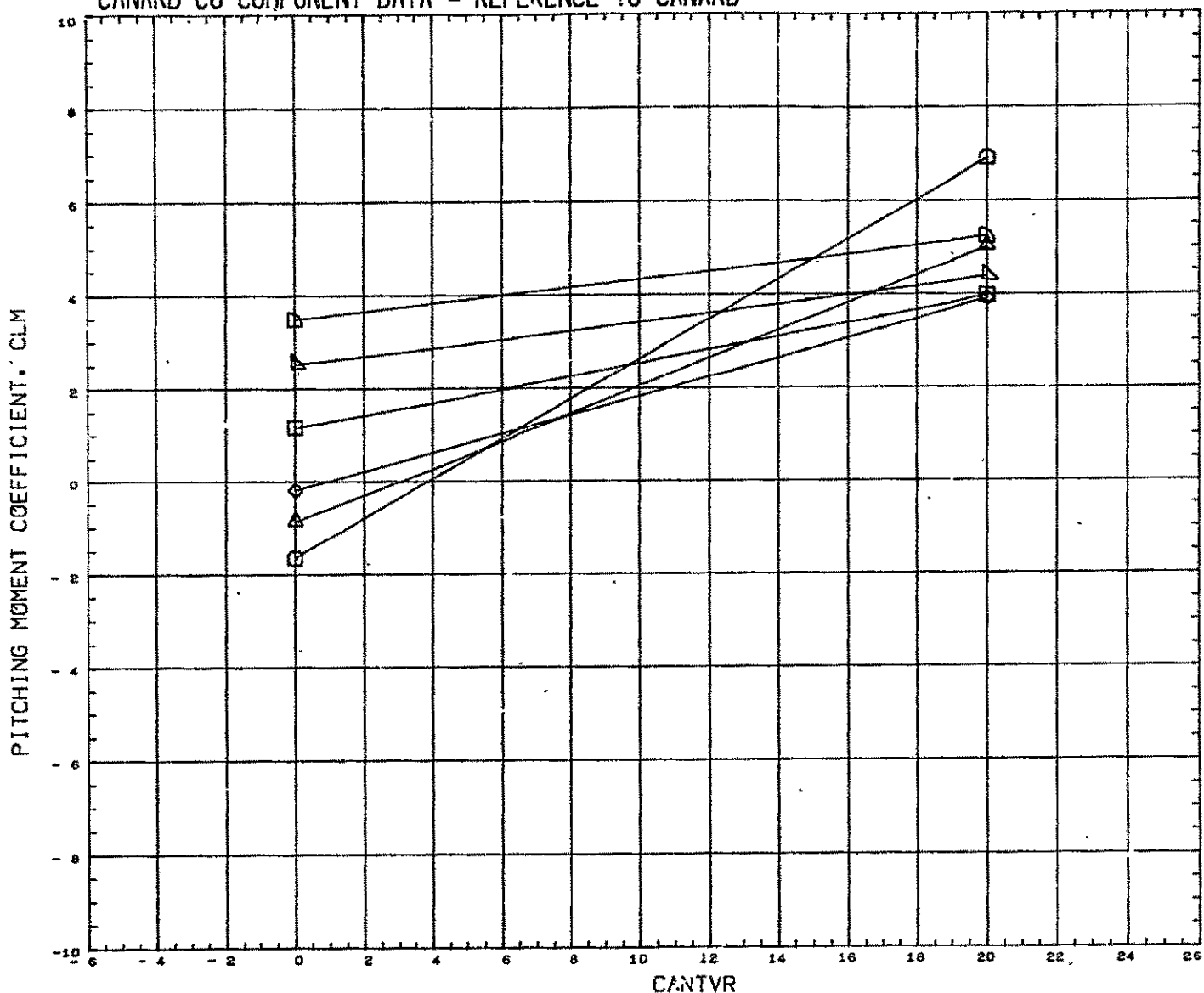
SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	SQ. IN
△	22.000	AILRON	0.000	RUDDER	0.000	UCMA45	0.000	UCMA44	20.000	REFL	2.2550	IN.
◇	24.000									REFB	5.8660	IN.
										XMRP	15.5890	IN.
										YMRP	0.0000	IN.
										ZMRP	4.8130	IN.
										SCALE	0.0175	

DATA HIST. CODE HVV\*ATI\*CSH

GDLST 587-0 C6 (B19W10V7)

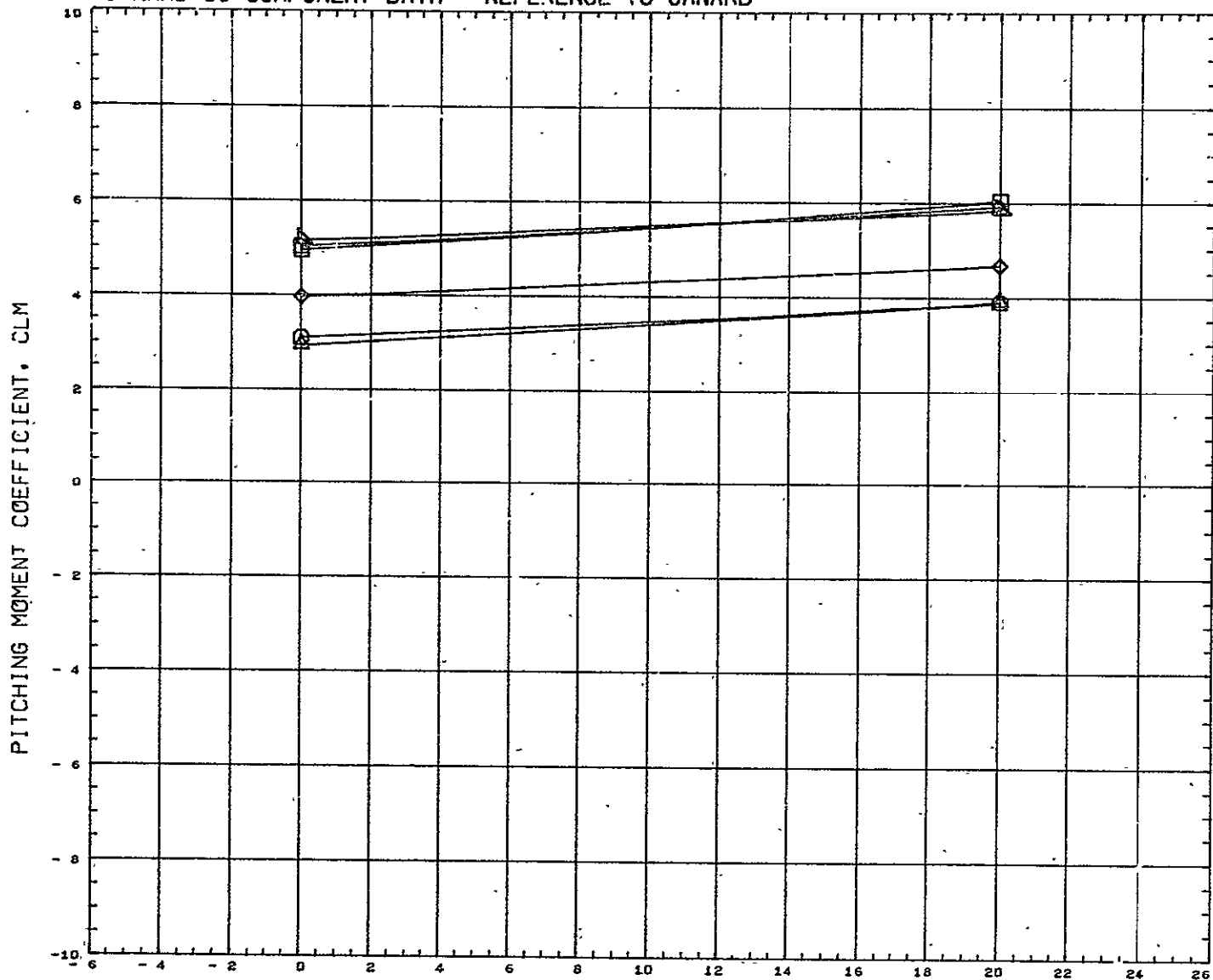
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# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL		PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	4.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	SQ. IN
◇	2.000	AILRON	0.000	RUDDER	0.000	UCMA45	0.000	UCMA44	20.000	REFL	2.2560	IN.
□	0.000									REFE	5.8660	IN.
△	2.000									XMRP	15.5990	IN.
▽	4.000									YMRP	0.0000	IN.
+	6.000									ZMRP	4.8130	IN.
		DATA HIST. CODE	HVV*AT1*CSM									
										SCALE	0.0175	

# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



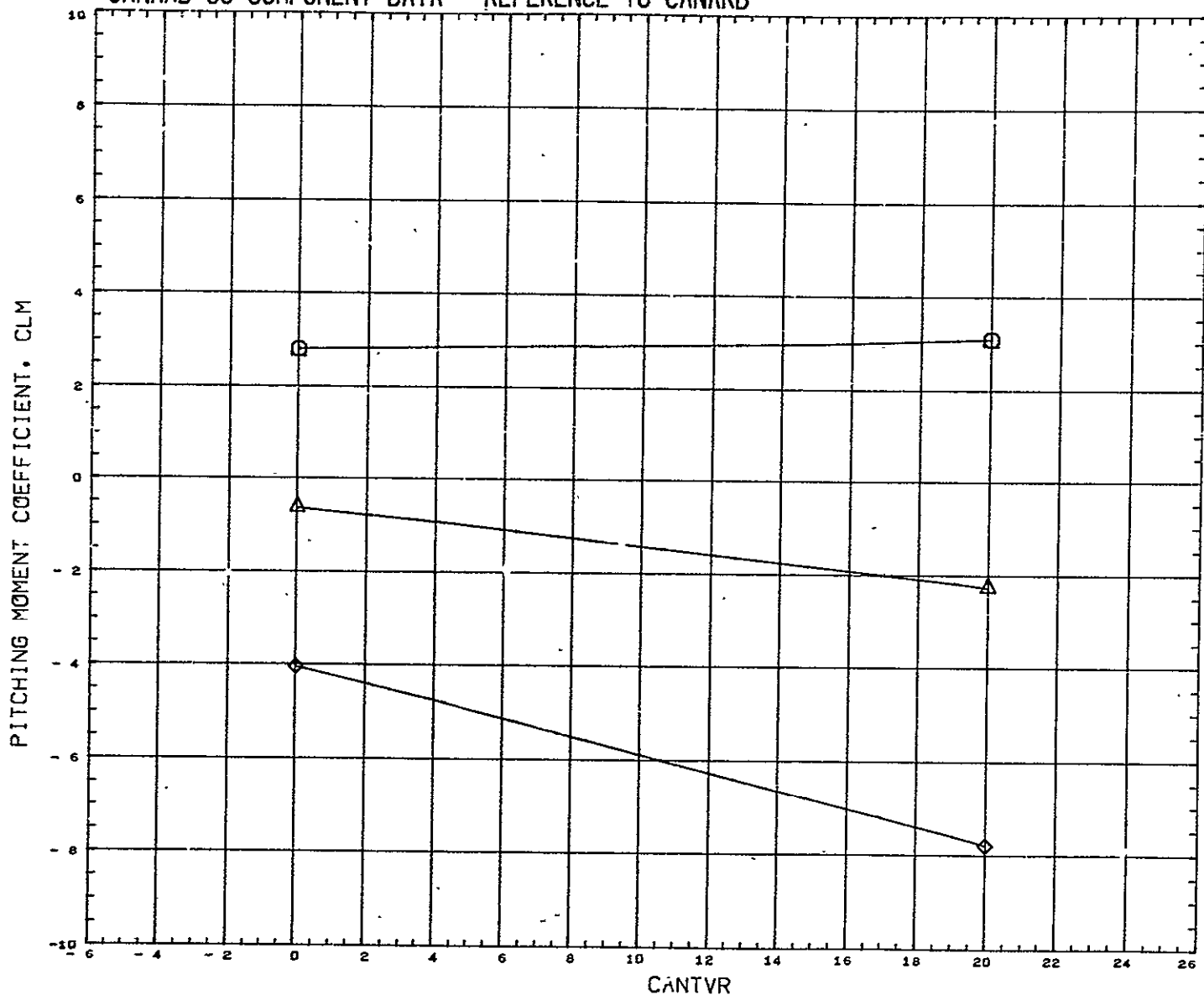
CANTVR

SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
8.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	SQ. IN	
10.000	AILRCN	0.000	RUDDER	0.000	UCMA45	0.000	UCMA44	20.000	REFL	2.2560	IN.	
12.000									REFB	5.8660	IN.	
14.000									XMRP	15.5890	IN.	
16.000									YMRP	0.0000	IN.	
18.000									ZMRP	4.8130	IN.	
20.000									SCALE	0.0175		
	DATA HIST. CODE	MVV#ATI#CSM										

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# CANARD C6 COMPONENT DATA - REFERENCE TO CANARD



SYMBOL	ALPHA	PARAMETRIC VALUES				DATA SOURCE				REFERENCE INFORMATION		
○	20.000	BETA	0.000	ELEVTR	0.000	DATASET	CANTVR	DATASET	CANTVR	REFS	13.2340	SQ. IN
△	22.000	AILRON	0.000	RUDDER	0.000	UCMA45	0.000	UCMA44	20.000	REFL	2.2560	IN.
◇	24.000									REFB	5.8660	IN.
										XMRP	15.5890	IN.
										YMRP	0.0000	IN.
										ZMRP	4.8130	IN.
										SCALE	0.0175	

DATA HIST. CODE MVV\*ATI\*CSM

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